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MITTEILUNGEN DER STAATLICHEN BOHRVERWALTUNG  
IN DEN NIEDERLANDEN

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FLORA  
OF THE  
CARBONIFEROUS <sup>OF</sup> THE NETHERLANDS  
AND  
ADJACENT REGIONS

BY  
Dr. W. J. JONGMANS

VOL. I

A MONOGRAPH OF THE CALAMITES  
OF WESTERN EUROPE

BY  
Dr. R. KIDSTON, F. R. S. L. AND E., F. G. S. AND Dr. W. J. JONGMANS

ATLAS  
PLATE 1—158

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UITGEGEVEN OP LAST VAN HET MINISTERIE VAN LANDBOUW, NIJVERHEID EN HANDEL

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's-GRAVENHAGE 1915

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atlas

Geology

## PROVISIONAL EXPLANATION OF FIGURES <sup>1)</sup>.

(A MORE DETAILED ONE WILL BE ISSUED IN THE VOLUME OF TEXT).

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|                                                            |                                                           |
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|                                                 |                                                    |
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| Pl. 100, fig. 4 . . . . .                       | <i>C. species</i> (Phragma).                       |
| Pl. 100, fig. 5 . . . . .                       | <i>C. species</i> (Pith cast and vascular wedges). |
| *Pl. 101, fig. 1, 2, 3 . . . . .                | <i>C. distachyus</i> Sternb.                       |
| *Pl. 102, fig. 1, 2, 3 . . . . .                | <i>C. distachyus</i> Sternb.                       |
| *Pl. 103, fig. 1, 2 . . . . .                   | <i>C. schulzi</i> Stur.                            |
| Pl. 104, fig. 1 . . . . .                       | <i>C. schulzi</i> Stur.                            |
| *Pl. 104, fig. 2, 3 . . . . .                   | <i>C. arborescens</i> Sternb.                      |
| Pl. 104, fig. 4 . . . . .                       | <i>C. species</i> .                                |
| Pl. 104, fig. 5; Pl. 105 . . . . .              | <i>C. carinatus</i> Sternb.                        |
| *Pl. 106, fig. 1, 3 . . . . .                   | <i>C. carinatus</i> Sternb.                        |
| Pl. 106, fig. 2, 4 . . . . .                    | <i>C. carinatus</i> Sternb.                        |
| Pl. 106, fig. 5 . . . . .                       | ? <i>C. cisti</i> Bgt.                             |
| Pl. 107, fig. 1 . . . . .                       | <i>C. carinatus</i> Sternb.                        |
| *Pl. 107, fig. 2, 3 . . . . .                   | <i>C. renaulti</i> Kidston et Jongmans.            |
| *Pl. 108, fig. 1, 2 . . . . .                   | <i>C. carinatus</i> Sternb.                        |
| Pl. 108, fig. 3, 4, 5 . . . . .                 | <i>C. paleaceus</i> Stur.                          |
| *Pl. 109, fig. 1, 2, 3 . . . . .                | <i>C. paleaceus</i> Stur.                          |
| Pl. 110, 111, 112; Pl. 113, fig. 1, 2 . . . . . | <i>C. paleaceus</i> Stur.                          |
| Pl. 113, fig. 3, 4 . . . . .                    | <i>C. cruciatus</i> Sternb.                        |
| Pl. 114, fig. 1, 2 . . . . .                    | <i>C. multiramis</i> Weiss.                        |
| Pl. 114, fig. 3 . . . . .                       | <i>C. cruciatus</i> Sternb.                        |
| Pl. 114, fig. 4; Pl. 115, fig. 1 . . . . .      | <i>C. paleaceus</i> Stur.                          |
| Pl. 115, fig. 2 . . . . .                       | <i>C. multiramis</i> Weiss.                        |
| *Pl. 116, fig. 1; Pl. 117, fig. 1 . . . . .     | <i>C. multiramis</i> Weiss.                        |
| Pl. 116, fig. 2 . . . . .                       | <i>C. paleaceus</i> Stur.                          |
| Pl. 116, fig. 3 . . . . .                       | <i>C. carinatus</i> Sternb. var. B.                |
| *Pl. 117, fig. 1; Pl. 116, fig. 1 . . . . .     | <i>C. multiramis</i> Weiss.                        |
| Pl. 117, fig. 2 . . . . .                       | <i>C. cf. paleaceus</i> Stur.                      |
| Pl. 118, fig. 1 . . . . .                       | <i>C. carinatus</i> Sternb. var. A.                |
| Pl. 118, fig. 2 . . . . .                       | <i>C. multiramis</i> Weiss.                        |
| Pl. 119, fig. 1 . . . . .                       | <i>C. britannicus</i> Weiss.                       |
| *Pl. 119, fig. 2; Pl. 120, fig. 1 . . . . .     | <i>C. multiramis</i> Weiss.                        |

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| Pl. 120, fig. 2. . . . .                                 | <i>C. multiramis</i> Weiss.                            |
| Pl. 121, fig. 1. . . . .                                 | <i>C. cruciatus</i> Sternb.                            |
| * Pl. 121, fig. 2; Pl. 122, fig. 1 . . . . .             | <i>C. cucullatus</i> Weiss.                            |
| Pl. 122, fig. 2. . . . .                                 | <i>C. britannicus</i> Weiss.                           |
| * Pl. 122, fig. 3; Pl. 123, fig. 1, 2. . . . .           | <i>C. multiramis</i> Weiss.                            |
| Pl. 122, fig. 4. . . . .                                 | <i>C. multiramis</i> Weiss.                            |
| * Pl. 123, fig. 1, 2; Pl. 122, fig. 3 . . . . .          | <i>C. multiramis</i> Weiss.                            |
| * Pl. 123, fig. 3, 4. . . . .                            | <i>C. multiramis</i> Weiss.                            |
| * Pl. 123, fig. 5; Pl. 124, fig. 2 . . . . .             | <i>C. multiramis</i> Weiss.                            |
| Pl. 124, fig. 1. . . . .                                 | <i>C. multiramis elongatus</i> Gutbier.                |
| * Pl. 124, fig. 2; Pl. 123, fig. 5 . . . . .             | <i>C. multiramis</i> Weiss.                            |
| * Pl. 124, fig. 3; Pl. 125, fig. 1 . . . . .             | <i>C. multiramis</i> Weiss.                            |
| Pl. 125, fig. 2; Pl. 126, 127; Pl. 128, fig. 1 . . . . . | <i>C. multiramis</i> Weiss.                            |
| * Pl. 128, fig. 2; Pl. 129, fig. 1 . . . . .             | <i>C. brongniarti</i> Sternb.                          |
| * Pl. 129, fig. 2, 3. . . . .                            | <i>C. artisi</i> Renault.                              |
| Pl. 130, fig. 1, 2. . . . .                              | <i>C. cruciatus</i> Sternb.                            |
| Pl. 130, fig. 3. . . . .                                 | <i>C. cruciatus elongatus</i> Gutbier.                 |
| Pl. 131, fig. 1. . . . .                                 | <i>C. cruciatus</i> Sternb.                            |
| * Pl. 131, fig. 2, 3. . . . .                            | <i>C. infractus</i> Gutbier.                           |
| Pl. 132, fig. 1. . . . .                                 | <i>C. infractus</i> Gutbier.                           |
| Pl. 132, fig. 2. . . . .                                 | <i>C. cf. infractus</i> Gutbier.                       |
| * Pl. 132, fig. 3, 4. . . . .                            | <i>C. elongatus</i> Renault.                           |
| Pl. 133, fig. 1. . . . .                                 | <i>C. cf. infractus</i> Gutbier.                       |
| * Pl. 133, fig. 2, 3. . . . .                            | <i>C. multiramis elongatus</i> Gutbier.                |
| Pl. 134, fig. 1. . . . .                                 | <i>C. species</i> ( <i>Arthropitys parrani</i> G. E.). |
| * Pl. 135, fig. 1, 2. . . . .                            | <i>C. goepperti</i> Ett.                               |
| Pl. 135, fig. 3. . . . .                                 | <i>Equisetites cf. vaujoli</i> Zeiller.                |
| Pl. 136, fig. 1. . . . .                                 | <i>C. goepperti</i> Ett.                               |
| * Pl. 136, fig. 2, 3. . . . .                            | <i>C. suckowi</i> Bgt.                                 |
| Pl. 137, fig. 1, 2. . . . .                              | <i>C. suckowi</i> Bgt.                                 |
| Pl. 137, fig. 3. . . . .                                 | <i>C. undulatus</i> Sternb.                            |
| Pl. 138, fig. 1. . . . .                                 | <i>C. suckowi</i> Bgt.                                 |
| Pl. 138, fig. 2. . . . .                                 | <i>C. germanianus</i> Goeppert.                        |
| Pl. 138, fig. 3. . . . .                                 | <i>Equisetites goepperti</i> Ett.                      |
| Pl. 138, fig. 4. . . . .                                 | <i>C. roemeri</i> Goeppert.                            |
| Pl. 139, fig. 1. . . . .                                 | <i>C. typ. cruciatus</i> Sternb.                       |
| Pl. 139, fig. 2. . . . .                                 | „ <i>Hippurites gigantea</i> ” L. et H.                |
| Pl. 139, fig. 3. . . . .                                 | <i>Equisetites species.</i>                            |
| Pl. 139, fig. 4, 5. . . . .                              | <i>C. species.</i>                                     |
| Pl. 140, fig. 1, 2. . . . .                              | „ <i>Asterophyllites grandis</i> ” L. et H.            |
| Pl. 141, fig. 1, 2, 3 . . . . .                          | <i>C. approximatifomis</i> Stur.                       |
| Pl. 141, fig. 4. . . . .                                 | <i>C. ramifer</i> Stur.                                |
| * Pl. 141, fig. 5; Pl. 142, fig. 1 . . . . .             | <i>C. ramifer</i> Stur.                                |
| * Pl. 141, fig. 6; Pl. 142, fig. 2 . . . . .             | <i>C. cistiiformis</i> Stur.                           |
| * Pl. 142, fig. 1; Pl. 141, fig. 5 . . . . .             | <i>C. ramifer</i> Stur.                                |
| * Pl. 142, fig. 2; Pl. 141, fig. 6 . . . . .             | <i>C. cistiiformis</i> Stur.                           |
| Pl. 142, fig. 3. . . . .                                 | ? <i>C. cistiiformis</i> Stur.                         |
| Pl. 142, fig. 4. . . . .                                 | <i>C. ramifer</i> Stur.                                |



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|---------------------------------------------------------------|--------------------------------------------------------|
| * Pl. 142, fig. 5, 6 (numbered on Plate fig. 2 right corner). | C. haueri Stur.                                        |
| * Pl. 143, fig. 1, 2; Pl. 144, fig. 1                         | C. ramifer Stur.                                       |
| * Pl. 143, fig. 3, 4.                                         | C. haueri Stur.                                        |
| Pl. 143, fig. 5, 6.                                           | C. roemeri Goeppert.                                   |
| Pl. 143, fig. 7.                                              | C. cistiiformis Stur.                                  |
| * Pl. 144, fig. 1; Pl. 143, fig. 1, 2                         | C. ramifer Stur.                                       |
| Pl. 144, fig. 2, 3.                                           | C. haueri Stur.                                        |
| * Pl. 144, fig. 4; Pl. 145, fig. 1                            | C. cistiiformis Stur.                                  |
| * Pl. 145, fig. 2, 3.                                         | C. haueri Stur.                                        |
| Pl. 145, fig. 4.                                              | C. haueri Stur.                                        |
| Pl. 145, fig. 5.                                              | C. species (C. ramifer Zeiller, Héraclée).             |
| Pl. 145, fig. 6.                                              | C. cistiiformis Stur.                                  |
| Pl. 145, fig. 7; Pl. 146, fig. 1, 2                           | C. haueri Stur.                                        |
| * Pl. 147, fig. 1, 2.                                         | C. cistiiformis Stur.                                  |
| * Pl. 147, fig. 3, 4.                                         | C. cistiiformis Stur.                                  |
| Pl. 147, fig. 5; Pl. 148, fig. 1                              | C. taitianus Kidston et Jongmans.                      |
| Pl. 148, fig. 2.                                              | C. species.                                            |
| Pl. 149, fig. 1.                                              | C. taitianus Kidston et Jongmans.                      |
| * Pl. 149, fig. 2, 3, 4.                                      | C. taitianus Kidston et Jongmans.                      |
| Pl. 149, fig. 5.                                              | C. taitianus Kidston et Jongmans.                      |
| * Pl. 149, fig. 6; Pl. 150, fig. 1, 2                         | Asterocalamites radiatus Bgt.                          |
| * Pl. 150, fig. 3; Pl. 151, fig. 1                            | Asterocalamites radiatus Bgt.                          |
| Pl. 151, fig. 2, 3.                                           | C. species.                                            |
| * Pl. 152, fig. 1, 2.                                         | Asterocalamites radiatus Bgt.                          |
| Pl. 152, fig. 3.                                              | Asterocalamites radiatus Bgt.                          |
| * Pl. 152, fig. 4, 5.                                         | Asterocalamites radiatus Bgt.                          |
| Pl. 153, fig. 1, 2, 3.                                        | Asterocalamites radiatus Bgt.                          |
| * Pl. 153, fig. 4, 5.                                         | Asterocalamites radiatus Bgt.                          |
| Pl. 153, fig. 6.                                              | „Anarthrocanna” Goeppert.                              |
| * Pl. 154, fig. 1, 2, 3.                                      | „Stigmatocanna volkmanniana” Goeppert.                 |
| Pl. 154, fig. 4.                                              | Asterocalamites radiatus Bgt.                          |
| Pl. 155, fig. 1.                                              | C. carinatus Sternb. var. rugosus Kidston et Jongmans. |
| Pl. 155, fig. 2, 3.                                           | C. paleaceus Stur.                                     |
| Pl. 156, fig. 1, 2.                                           | C. jubatus L. et H.                                    |
| * Pl. 156, fig. 3; Pl. 157, fig. 1, 2                         | C. jubatus L. et H.                                    |
| * Pl. 156, fig. 4, 5.                                         | C. roemeri Goeppert.                                   |
| Pl. 156, fig. 6.                                              | C. carinatus Sternb.                                   |
| Pl. 156, fig. 7.                                              | C. verticillatus L. et H.                              |
| Pl. 156, fig. 8.                                              | C. cruciatus Sternb.                                   |
| * Pl. 157, fig. 1, 2; Pl. 156, fig. 3                         | C. jubatus L. et H.                                    |
| Pl. 157, fig. 3.                                              | C. jubatus L. et H.                                    |
| Pl. 157, fig. 4.                                              | C. schützei Stur.                                      |
| Pl. 157, fig. 5.                                              | C. undulatus Sternb.                                   |
| Pl. 158, fig. 1.                                              | C. cisti Bgt.                                          |
| * Pl. 158, fig. 2, 3.                                         | Asterophyllites equisetiformis Schl.                   |
| Pl. 158, fig. 4.                                              | Annularia stellata Schl.                               |
| Pl. 158, fig. 5.                                              | Palaeostachya gracillima Weiss.                        |

# LIST OF THE SPECIES OF CALAMITES INCLUDED IN THIS MEMOIR, WITH REFERENCES TO THE PLATES ON WHICH THEY ARE FIGURED.

|                                                                  |                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>C. approximatifomis</i> Stur . . . . .                        | Pl. 141, fig. 1, 2, 3.                                                                                                                                                                                                                                    |
| <i>C. arborescens</i> Sternb. . . . .                            | Pl. 104, fig. 2, 3.                                                                                                                                                                                                                                       |
| <i>C. artisi</i> Renault . . . . .                               | Pl. 129, fig. 2, 3.                                                                                                                                                                                                                                       |
| <i>C. bohemicus</i> K. et J. . . . .                             | Pl. 59, fig. 3.                                                                                                                                                                                                                                           |
| <i>C. britannicus</i> Weiss . . . . .                            | Pl. 119, fig. 1; Pl. 122, fig. 2.                                                                                                                                                                                                                         |
| <i>C. brittsii</i> White . . . . .                               | Pl. 62, fig. 4; Pl. 63, fig. 1, 2, 3; ? Pl. 65, fig. 3, 4, 5.                                                                                                                                                                                             |
| <i>C. brongniarti</i> Sternb. . . . .                            | Pl. 128, fig. 2; Pl. 129, fig. 1.                                                                                                                                                                                                                         |
| <i>C. carinatus</i> Sternb. . . . .                              | Pl. 66, fig. 5; Pl. 104, fig. 5; Pl. 105; Pl. 106, fig. 1, 2, 3, 4; Pl. 107, fig. 1; Pl. 108, fig. 1, 2; Pl. 156, fig. 6.                                                                                                                                 |
| <i>C. carinatus</i> Sternb. var. <i>rugosus</i> K. et J. . . . . | Pl. 41, fig. 1, 2, 3; Pl. 155, fig. 1.                                                                                                                                                                                                                    |
| <i>C. carinatus</i> Sternb. var. <i>A.</i> . . . . .             | Pl. 118, fig. 1.                                                                                                                                                                                                                                          |
| <i>C. carinatus</i> Sternb. var. <i>B.</i> . . . . .             | Pl. 116, fig. 3.                                                                                                                                                                                                                                          |
| <i>C. cisti</i> Bgt. . . . .                                     | Pl. 94, fig. 1, 2; Pl. 95, fig. 2, 3, 4, 5; Pl. 96, fig. 1, 2; ? Pl. 106, fig. 5; Pl. 158, fig. 1.                                                                                                                                                        |
| <i>C. cistiiformis</i> Stur . . . . .                            | Pl. 141, fig. 6; Pl. 142, fig. 2, ? fig. 3; Pl. 143, fig. 7; Pl. 144, fig. 4; Pl. 145, fig. 1, 6; Pl. 147, fig. 1, 2, 3, 4.                                                                                                                               |
| <i>C. cruciatus</i> Sternb. . . . .                              | Pl. 113, fig. 3, 4; Pl. 114, fig. 3; Pl. 121, fig. 1; Pl. 130, fig. 1, 2; Pl. 131, fig. 1; Pl. 156, fig. 8.                                                                                                                                               |
| <i>C. cucullatus</i> Weiss . . . . .                             | Pl. 121, fig. 2; Pl. 122, fig. 1.                                                                                                                                                                                                                         |
| <i>C. deltenrei</i> K. et J. . . . .                             | Pl. 69, fig. 1.                                                                                                                                                                                                                                           |
| <i>C. dictyoderma</i> K. et J. . . . .                           | Pl. 50, fig. 1, 2.                                                                                                                                                                                                                                        |
| <i>C. discifer</i> Weiss . . . . .                               | Pl. 58, fig. 4; Pl. 61, fig. 4; Pl. 62, fig. 3; Pl. 65, fig. 2; Pl. 67, fig. 2, 3; Pl. 68, fig. 3; Pl. 78, fig. 2.                                                                                                                                        |
| <i>C. distachyus</i> Sternb. . . . .                             | Pl. 101, 102.                                                                                                                                                                                                                                             |
| <i>C. elongatus</i> Renault . . . . .                            | Pl. 132, fig. 3, 4.                                                                                                                                                                                                                                       |
| <i>C. germarianus</i> Goeppert . . . . .                         | Pl. 58, fig. 2; Pl. 69, fig. 2; Pl. 138, fig. 2; ? Pl. 71, fig. 1, 2.                                                                                                                                                                                     |
| <i>C. gigas</i> Bgt. . . . .                                     | Pl. 90, fig. 3, 4, 5; Pl. 91; Pl. 92, fig. 1, 2, 3; Pl. 93, fig. 1, 2; Pl. 96, fig. 3.                                                                                                                                                                    |
| <i>C. goepperti</i> Ett. . . . .                                 | Pl. 51, fig. 3, 4; Pl. 53, 54; Pl. 55, fig. 1—4; Pl. 56, fig. 1—4; Pl. 61, fig. 3; Pl. 65, fig. 1; Pl. 66, fig. 1, 2, 3; Pl. 81, fig. 4; Pl. 135, fig. 1, 2; Pl. 136, fig. 1.                                                                             |
| <i>C. haueri</i> Stur . . . . .                                  | Pl. 142, fig. 5, 6; Pl. 143, fig. 3, 4; Pl. 144, fig. 2, 3; Pl. 145, fig. 2, 3, 4, 7; Pl. 146, fig. 1, 2.                                                                                                                                                 |
| <i>C. infractus</i> Gutbier. . . . .                             | ? Pl. 39, fig. 4; Pl. 131, fig. 2, 3; Pl. 132, fig. 1, ? 2; ? Pl. 133, fig. 1.                                                                                                                                                                            |
| <i>C. jubatus</i> L. et H. . . . .                               | Pl. 97; Pl. 98; Pl. 99, fig. 1; Pl. 100, fig. 1, 2; Pl. 156, fig. 1, 2, 3; Pl. 157, fig. 1, 2, 3.                                                                                                                                                         |
| <i>C. multiramis</i> Weiss. . . . .                              | Pl. 114, fig. 1, 2; Pl. 115, fig. 2; Pl. 116, fig. 1; Pl. 117, fig. 1; Pl. 118, fig. 2; Pl. 119, fig. 2; Pl. 120, fig. 1, 2; Pl. 122, fig. 3, 4; Pl. 123, fig. 1—5; Pl. 124, fig. 2, 3; Pl. 125, fig. 1, 2; Pl. 126, fig. 1, 2; Pl. 127; Pl. 128, fig. 1. |



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| <i>C. multiramis</i> Weiss var. <i>elongatus</i> Gutbier . . .                   | Pl. 124, fig. 1; Pl. 130, fig. 3; Pl. 133, fig. 2, 3.                                                                                                                                                                                                            |
| <i>C. ohlsbachensis</i> Sterzel . . . . .                                        | Pl. 48, fig. 4; Pl. 49, fig. 2–7.                                                                                                                                                                                                                                |
| <i>C. paleaceus</i> Stur. . . . .                                                | Pl. 66, fig. 6; Pl. 67, fig. 1; Pl. 81, fig. 1; Pl. 108, fig. 3, 4, 5; Pl. 109, 110, 111, 112; Pl. 113, fig. 1, 2; Pl. 114, fig. 4; Pl. 115, fig. 1; Pl. 116, fig. 2; Pl. 155, fig. 2, 3.                                                                        |
| <i>C. cf. paleaceus</i> Stur. . . . .                                            | Pl. 117, fig. 2.                                                                                                                                                                                                                                                 |
| <i>C. pseudogermarianus</i> K. et J. . . . .                                     | Pl. 59, fig. 4; Pl. 64, fig. 1; Pl. 68, fig. 4, 5.                                                                                                                                                                                                               |
| <i>C. ramifer</i> Stur . . . . .                                                 | Pl. 141, fig. 4, 5; Pl. 142, fig. 1, 4; Pl. 143, fig. 1, 2; Pl. 144, fig. 1.                                                                                                                                                                                     |
| <i>C. renaulti</i> K. et J. . . . .                                              | Pl. 107, fig. 2, 3.                                                                                                                                                                                                                                              |
| <i>C. roemeri</i> Goeppert . . . . .                                             | Pl. 40, fig. 1, 2; Pl. 47, fig. 1; Pl. 138, fig. 4; Pl. 143, fig. 5, 6; Pl. 156, fig. 4, 5.                                                                                                                                                                      |
| <i>C. sachsei</i> Stur . . . . .                                                 | Pl. 56, fig. 5, 6?; Pl. 57, fig. 1–3?, fig. 4–7; Pl. 58, fig. 1, 3; Pl. 59, fig. 1; Pl. 60, fig. 1, 2, 3; Pl. 61, fig. 1, 2; Pl. 62, fig. 1, 2; Pl. 63, fig. 4, 5, 6; Pl. 66, fig. 4; Pl. 95, fig. 1; Pl. 99, fig. 2.                                            |
| <i>C. schulzi</i> Stur . . . . .                                                 | Pl. 103; Pl. 104, fig. 1.                                                                                                                                                                                                                                        |
| <i>C. schützei</i> Stur . . . . .                                                | Pl. 76, fig. 1, 2; Pl. 81, fig. 2, 3; Pl. 157, fig. 4.                                                                                                                                                                                                           |
| <i>C. schützeiformis</i> K. et J. forma <i>typicus</i> K. et J. . .              | Pl. 68, fig. 1; Pl. 71, fig. 3; Pl. 73, fig. 5; Pl. 74, fig. 1; Pl. 75, fig. 1, 2; Pl. 79, fig. 1, 2; Pl. 80, fig. 1, 2.                                                                                                                                         |
| <i>C. schützeiformis</i> K. et J. forma <i>intermedius</i> K. et J. .            | Pl. 68, fig. 2; Pl. 73, fig. 1, 2; Pl. 76, fig. 3.                                                                                                                                                                                                               |
| <i>C. schützeiformis</i> K. et J. forma <i>waldenburgensis</i> Kidston . . . . . | Pl. 71, fig. 4, 5; Pl. 72; Pl. 73, fig. 3, 4; Pl. 74, fig. 2, 3; Pl. 77, fig. 1, 2; Pl. 78, fig. 1, 3; Pl. 79, fig. 3, 4.                                                                                                                                        |
| <i>C. semicircularis</i> Weiss . . . . .                                         | Pl. 40, fig. 4; Pl. 42, fig. 1–5; Pl. 43, fig. 1, 4; Pl. 44, fig. 2, 3, 4; Pl. 45, fig. 1–3; Pl. 46, fig. 1–4; Pl. 47, fig. 2–6; Pl. 48, fig. 2; Pl. 49, fig. 1.                                                                                                 |
| <i>C. steinhaueri</i> Bgt. . . . .                                               | Pl. 88, fig. 1.                                                                                                                                                                                                                                                  |
| <i>C. suckowi</i> Bgt. . . . .                                                   | Pl. 39, fig. 2, 3; Pl. 82, 83, 84, 85, 86, 87; Pl. 88, fig. 2, 3; Pl. 89; Pl. 90, fig. 2; Pl. 136, fig. 2, 3; Pl. 137, fig. 1, 2; Pl. 138, fig. 1.                                                                                                               |
| <i>C. taitianus</i> K. et J. . . . .                                             | Pl. 147, fig. 5; Pl. 148, fig. 1; Pl. 149, fig. 1, 2, 3, 4, 5.                                                                                                                                                                                                   |
| <i>C. transversalis</i> K. et J. . . . .                                         | Pl. 59, fig. 2.                                                                                                                                                                                                                                                  |
| <i>C. undulatus</i> Sternb. . . . .                                              | Pl. 1–23; Pl. 24, fig. 1, 2, 3; Pl. 25–28; Pl. 29, fig. 1, 2; Pl. 30; Pl. 31, fig. 1, 2, 3, (4), 5; Pl. 32–37; Pl. 38, fig. 1; Pl. 39, fig. 1; Pl. 44, fig. 1; Pl. 47, fig. 7; Pl. 48, fig. 1; Pl. 50, fig. 5; Pl. 51, fig. 1; Pl. 137, fig. 3; Pl. 157, fig. 5. |
| <i>C. vaginatus</i> Zeiller . . . . .                                            | Pl. 48, fig. 3; Pl. 52, fig. 8.                                                                                                                                                                                                                                  |
| <i>C. vandergrachti</i> K. et J. . . . .                                         | Pl. 69, fig. 3, 4; Pl. 70.                                                                                                                                                                                                                                       |
| <i>C. verticillatus</i> L. et H. . . . .                                         | Pl. 51, fig. 2; Pl. 52, fig. 3–7; Pl. 156, fig. 7.                                                                                                                                                                                                               |
| <i>C. wedekindi</i> Weiss . . . . .                                              | Pl. 40, fig. 3; Pl. 41, fig. 4; Pl. 43, fig. 2, 3, 5.                                                                                                                                                                                                            |

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|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <i>Asterocalamites radiatus</i> Bgt. . . . . | Pl. 149, fig. 6; Pl. 150, fig. 1, 2, 3; Pl. 151, fig. 1; Pl. 152, fig. 1, 2, 3, 4, 5; Pl. 153, fig. 1, 2, 3, 4, 5; Pl. 154, fig. 4. |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|















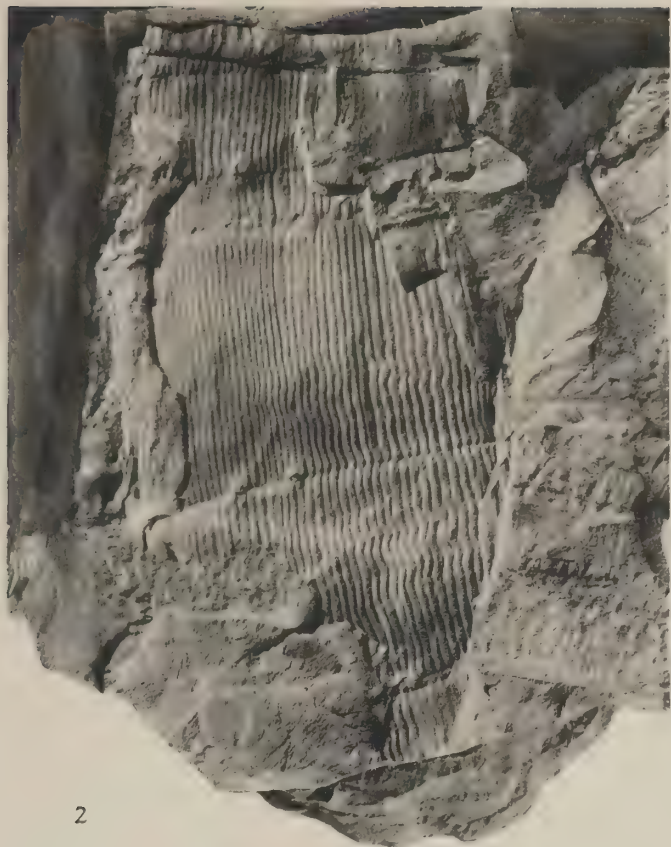
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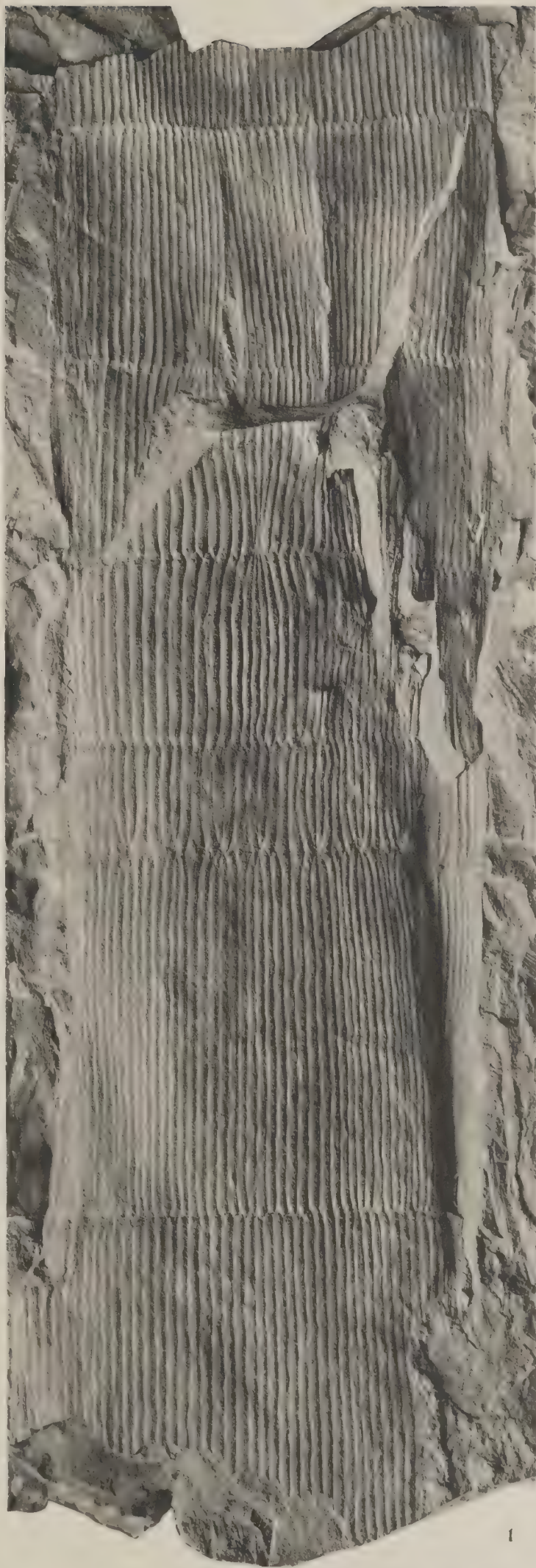




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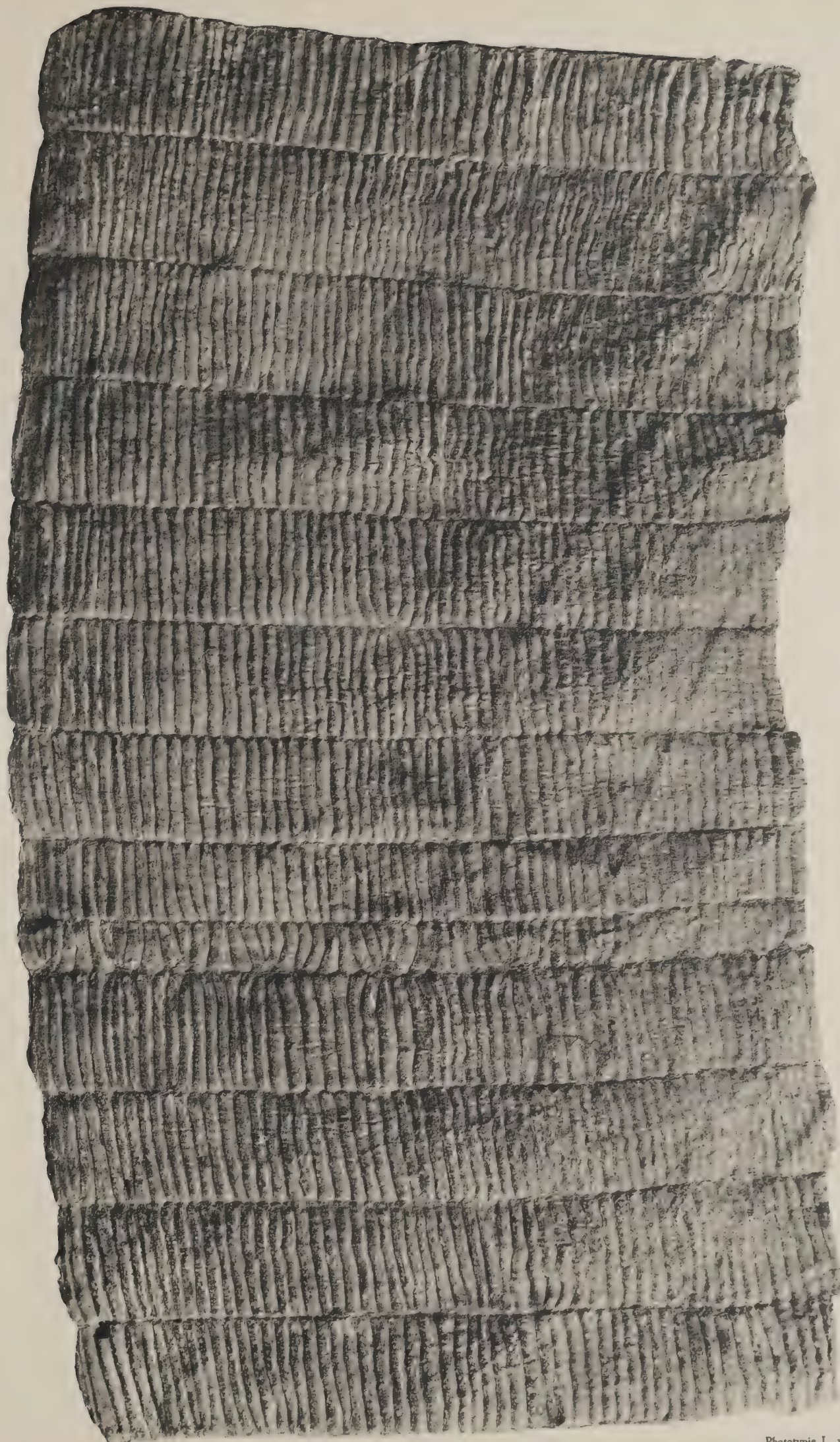






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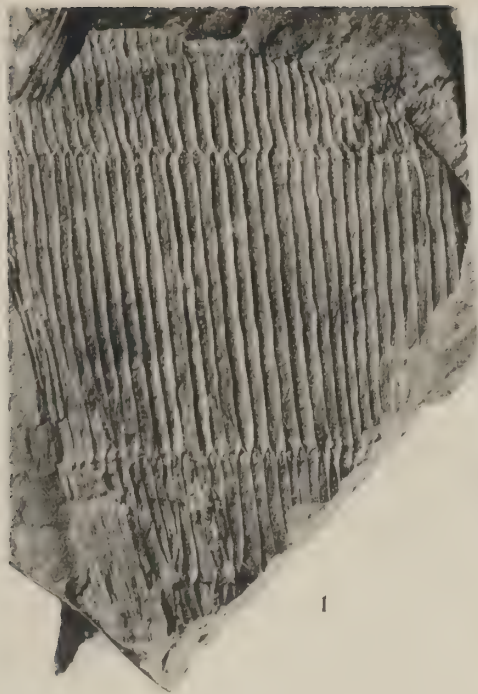




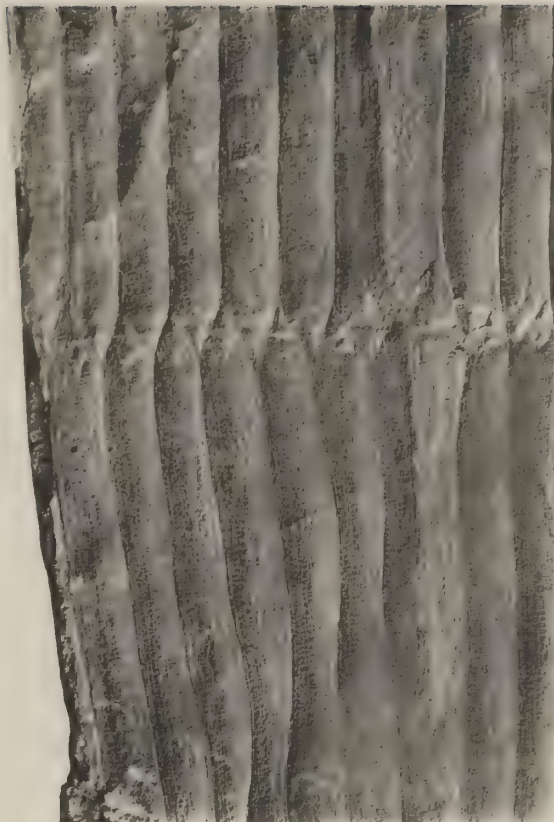
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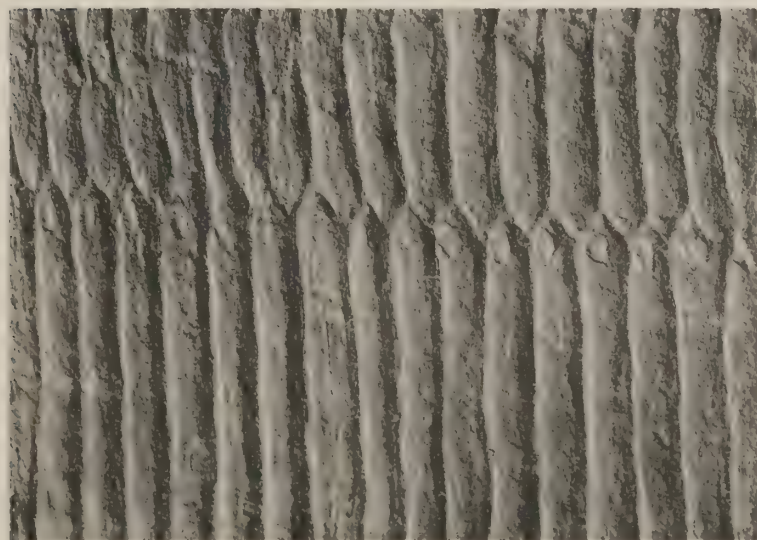
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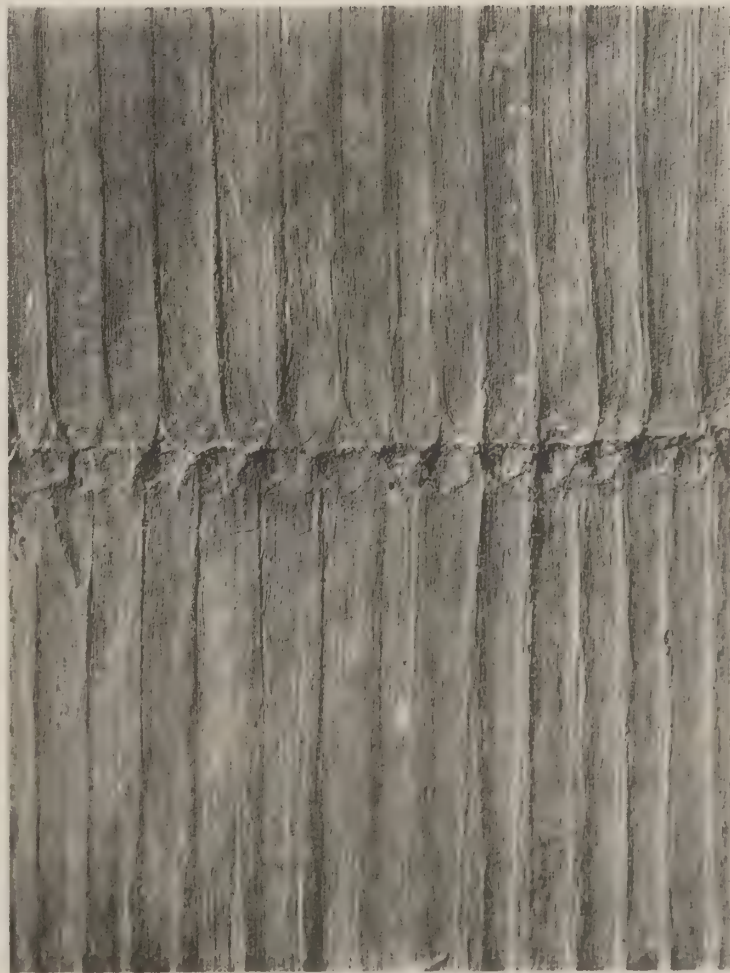
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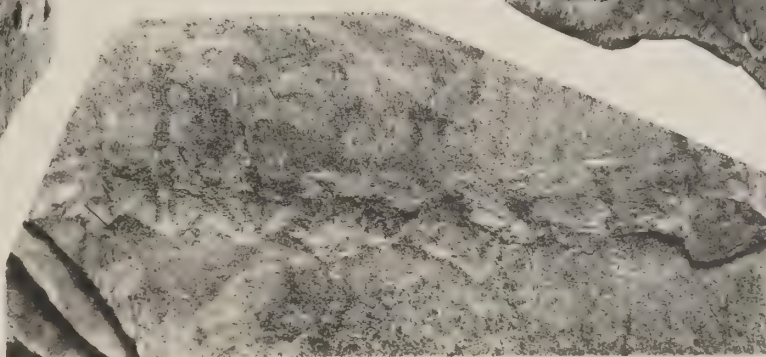
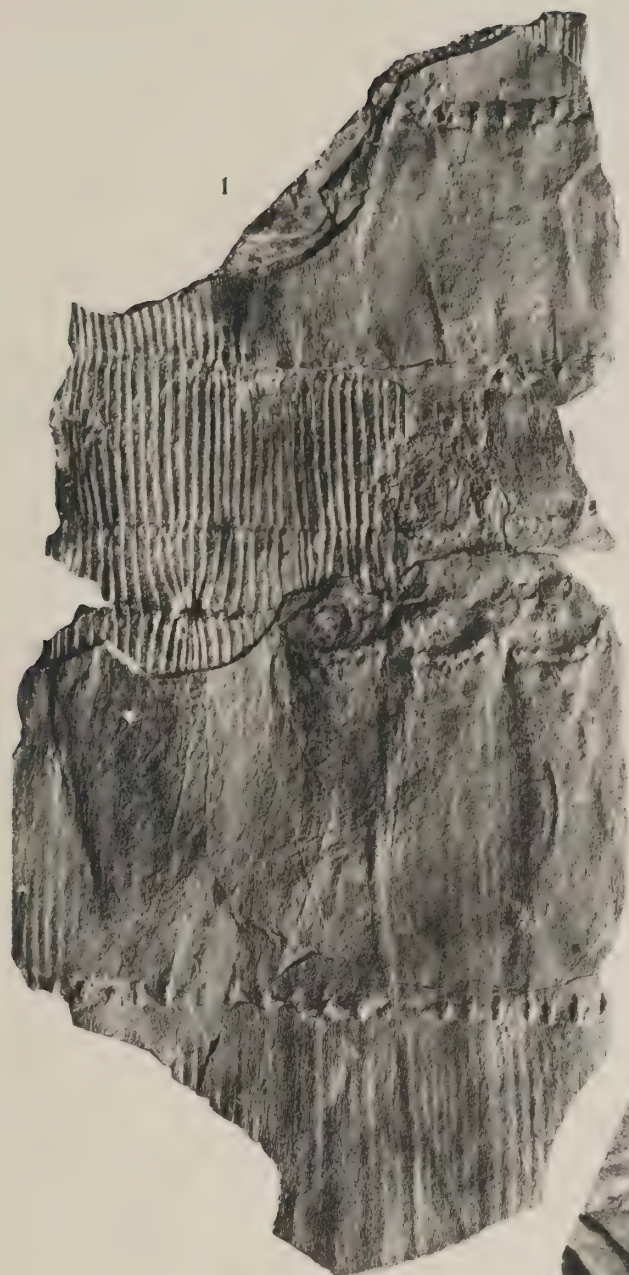






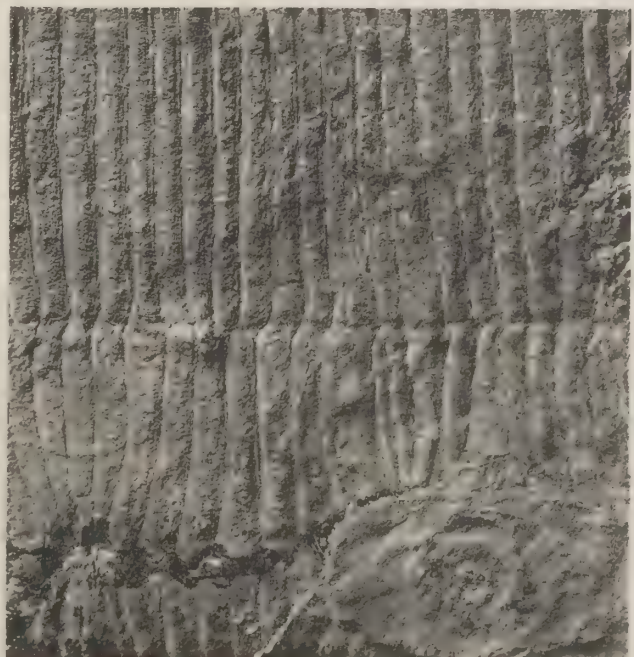
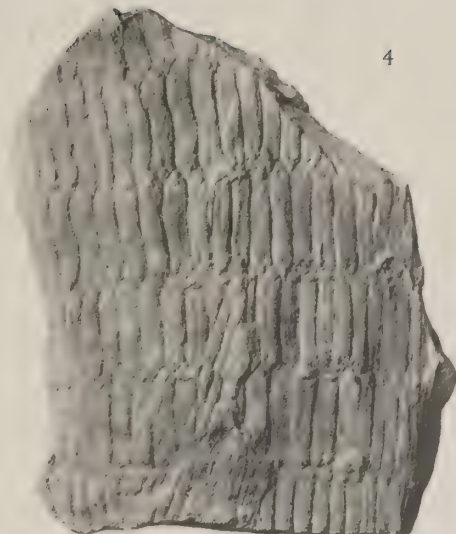






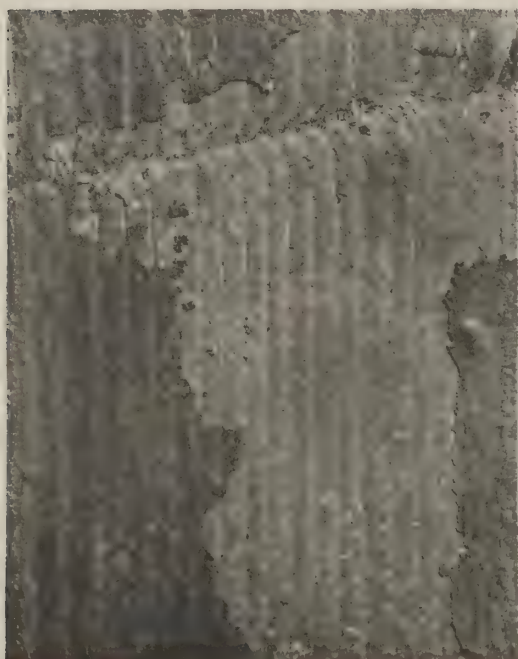


















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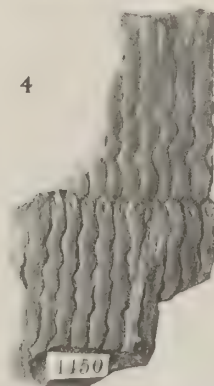
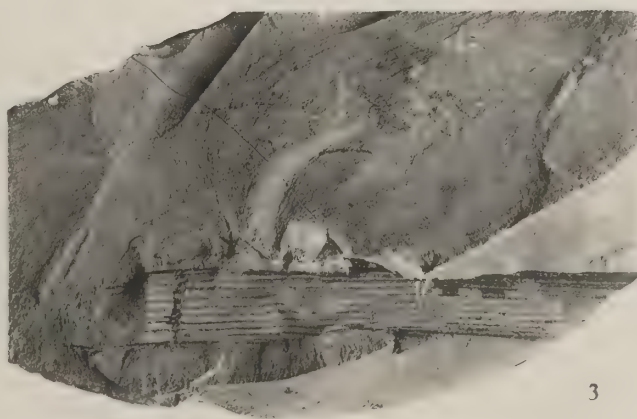
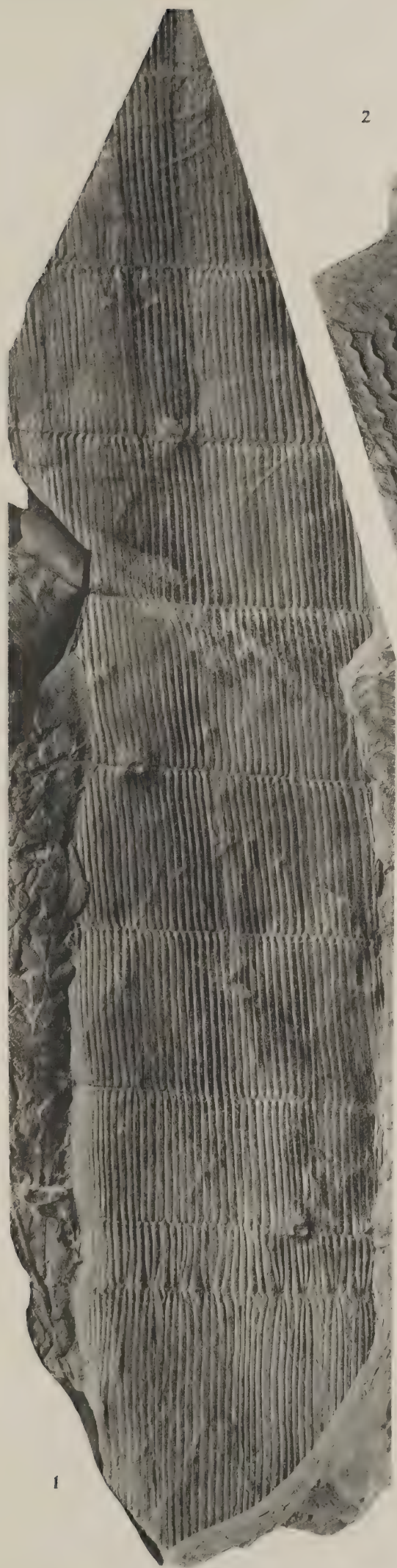






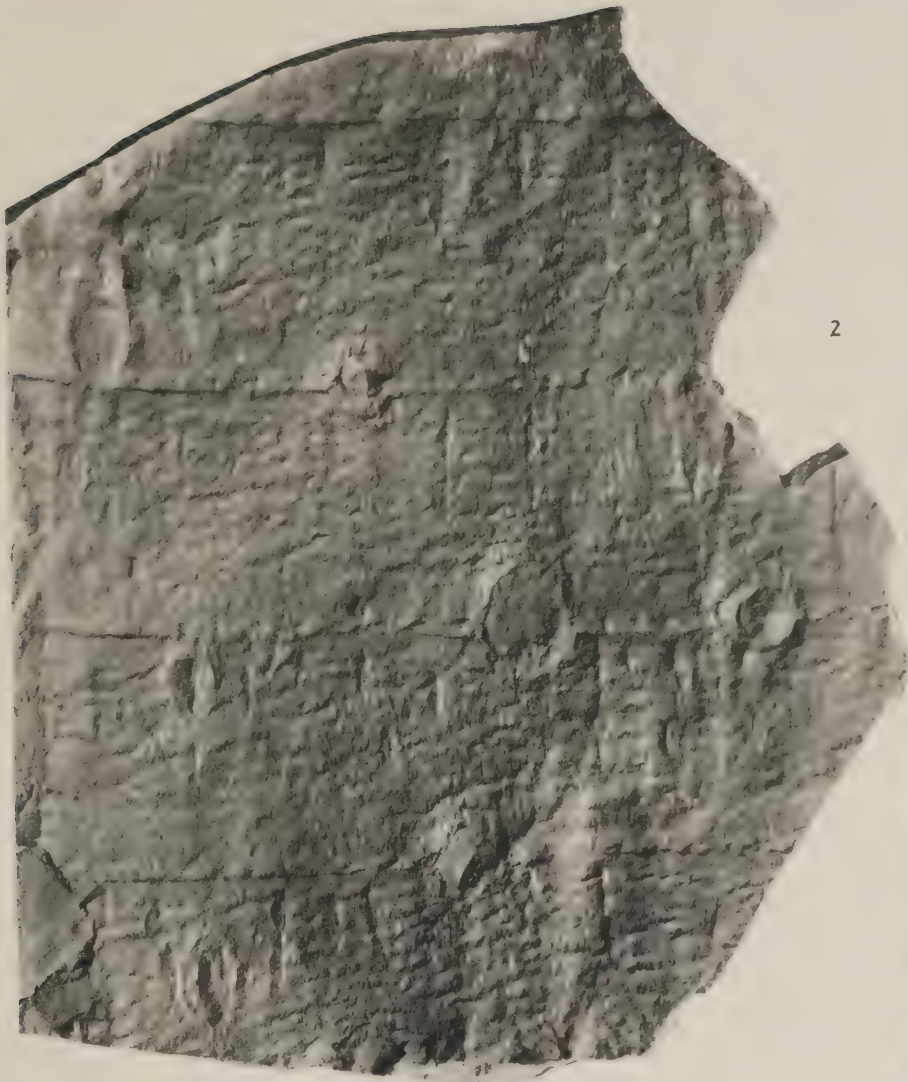




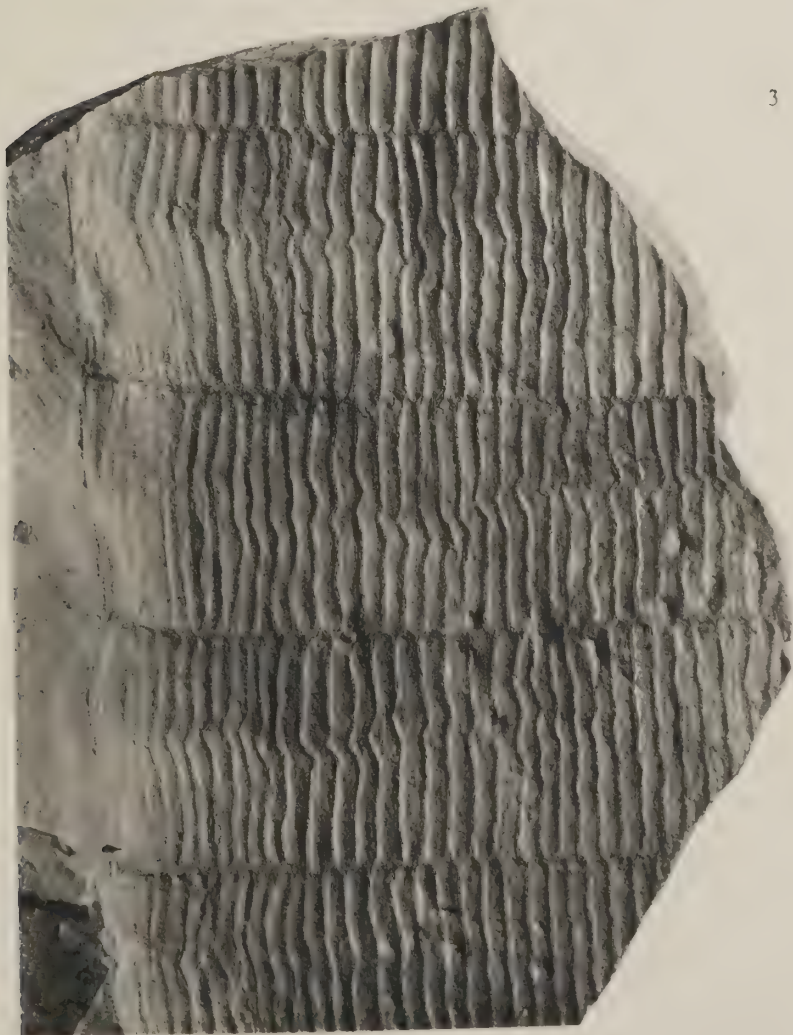








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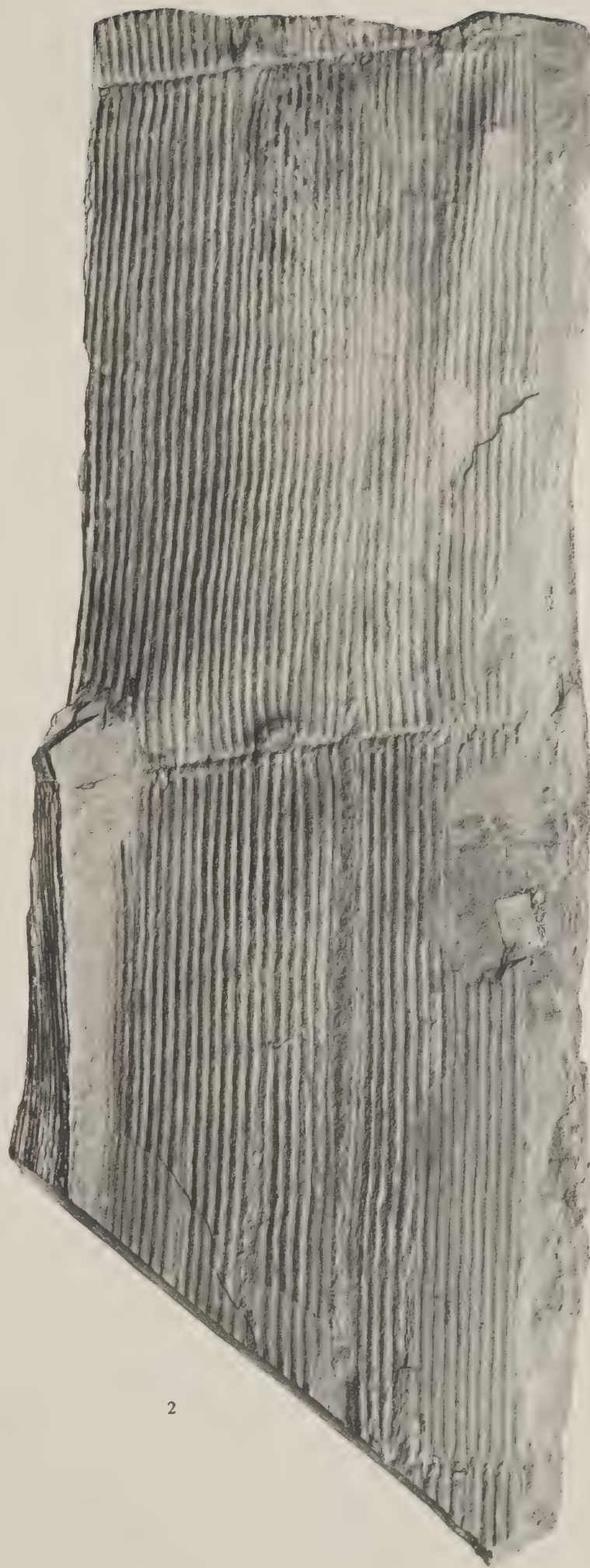








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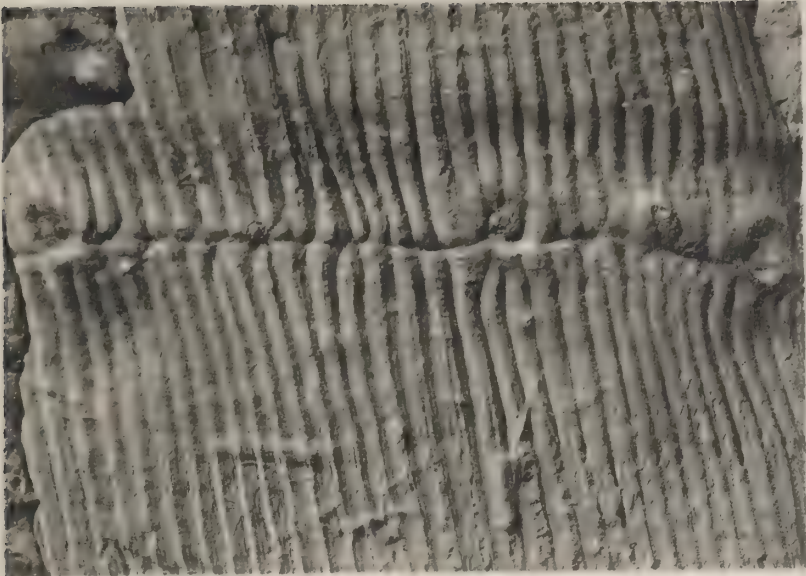








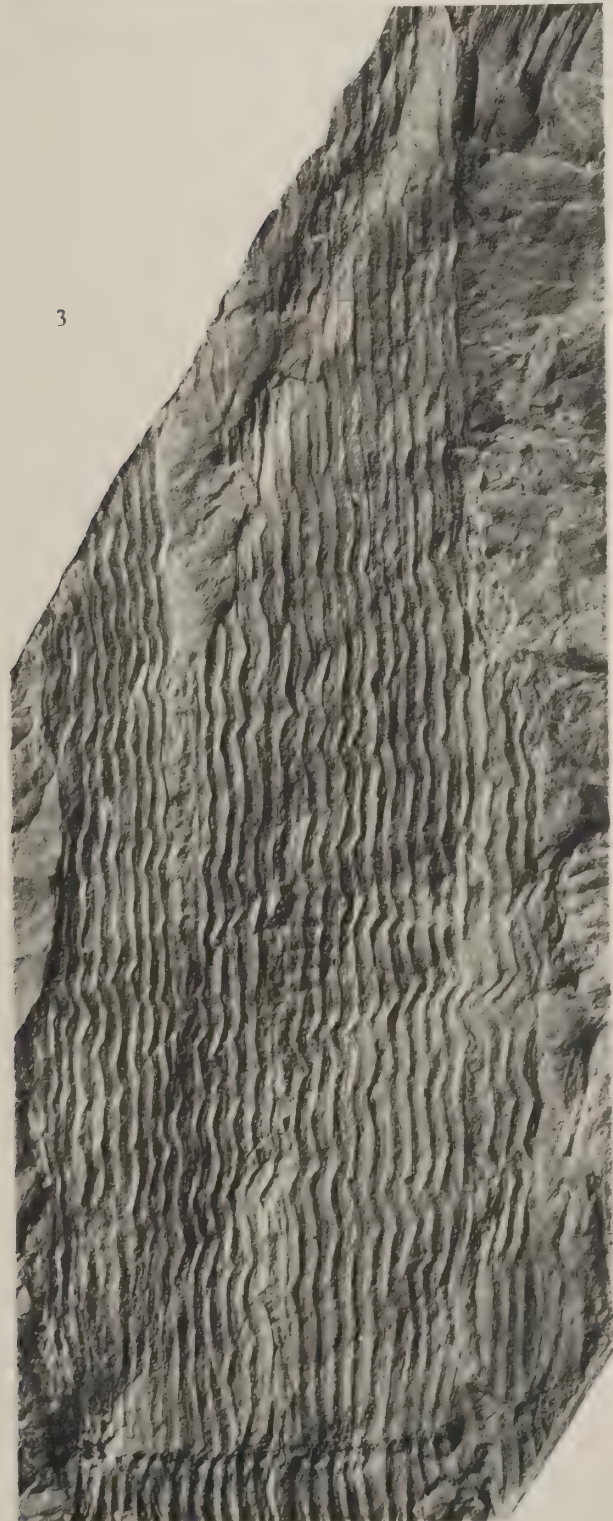




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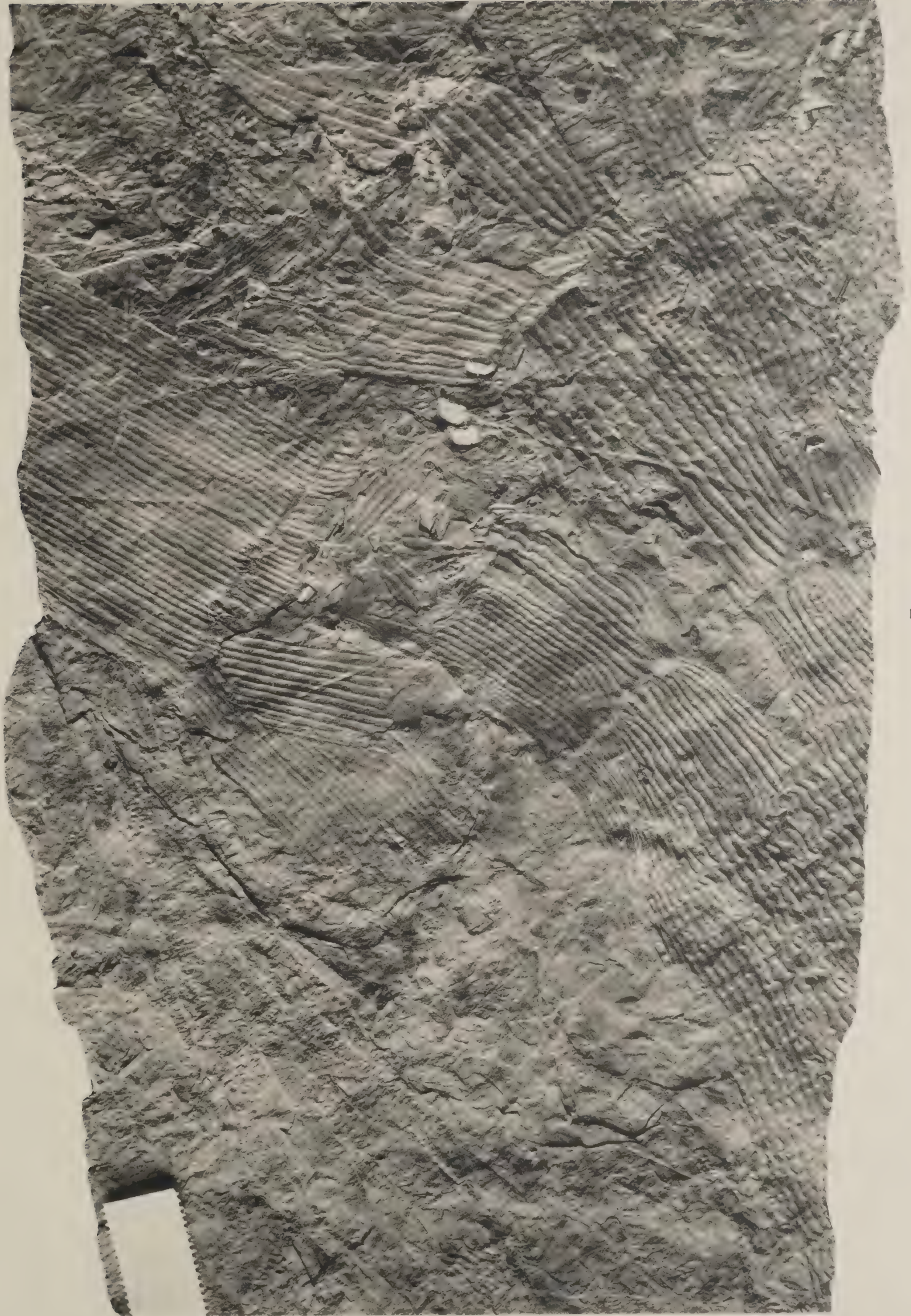


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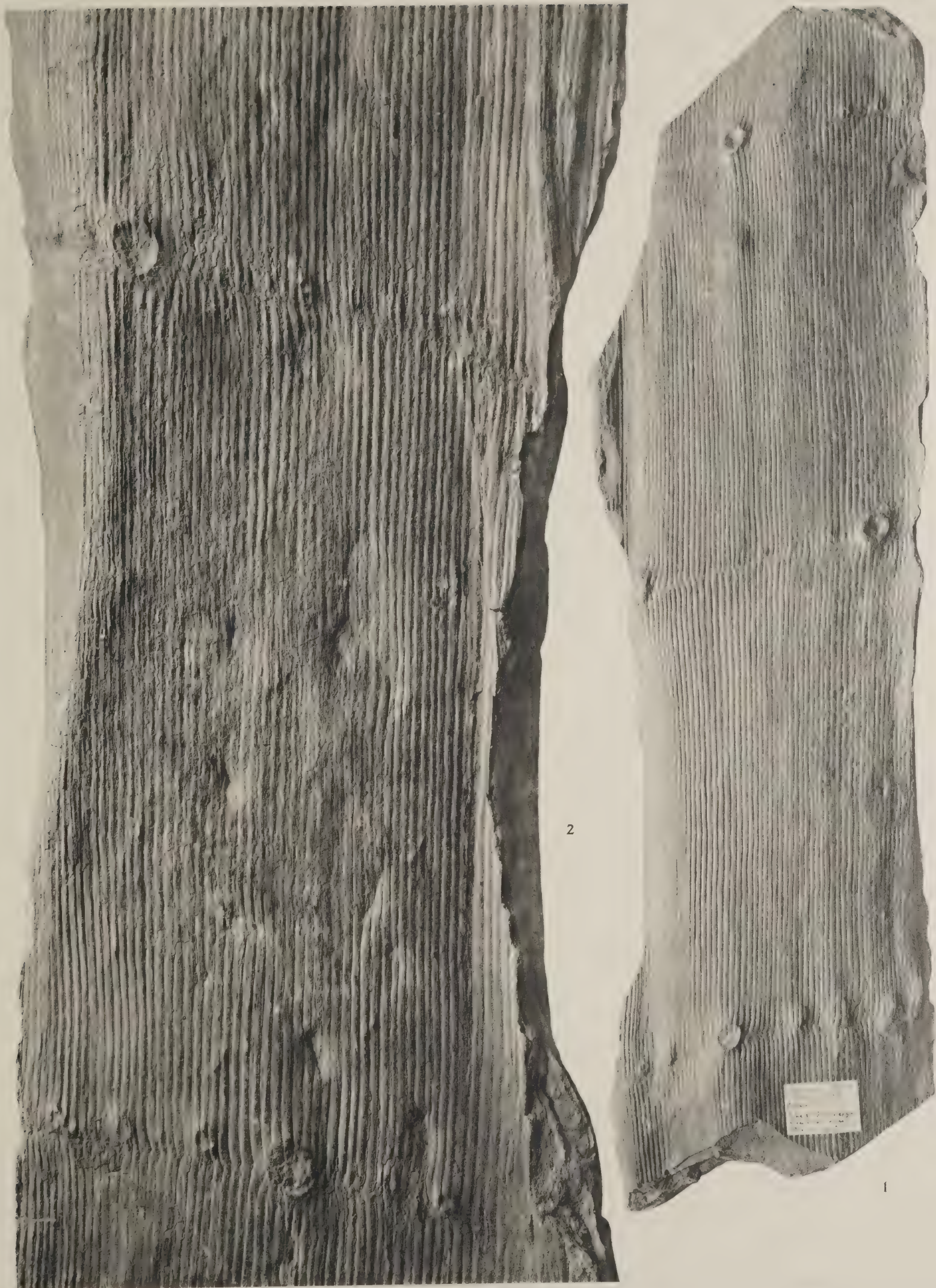


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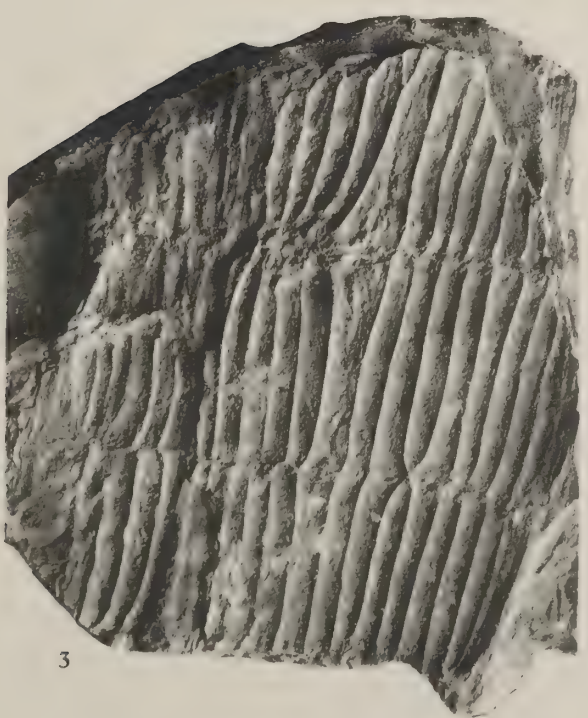


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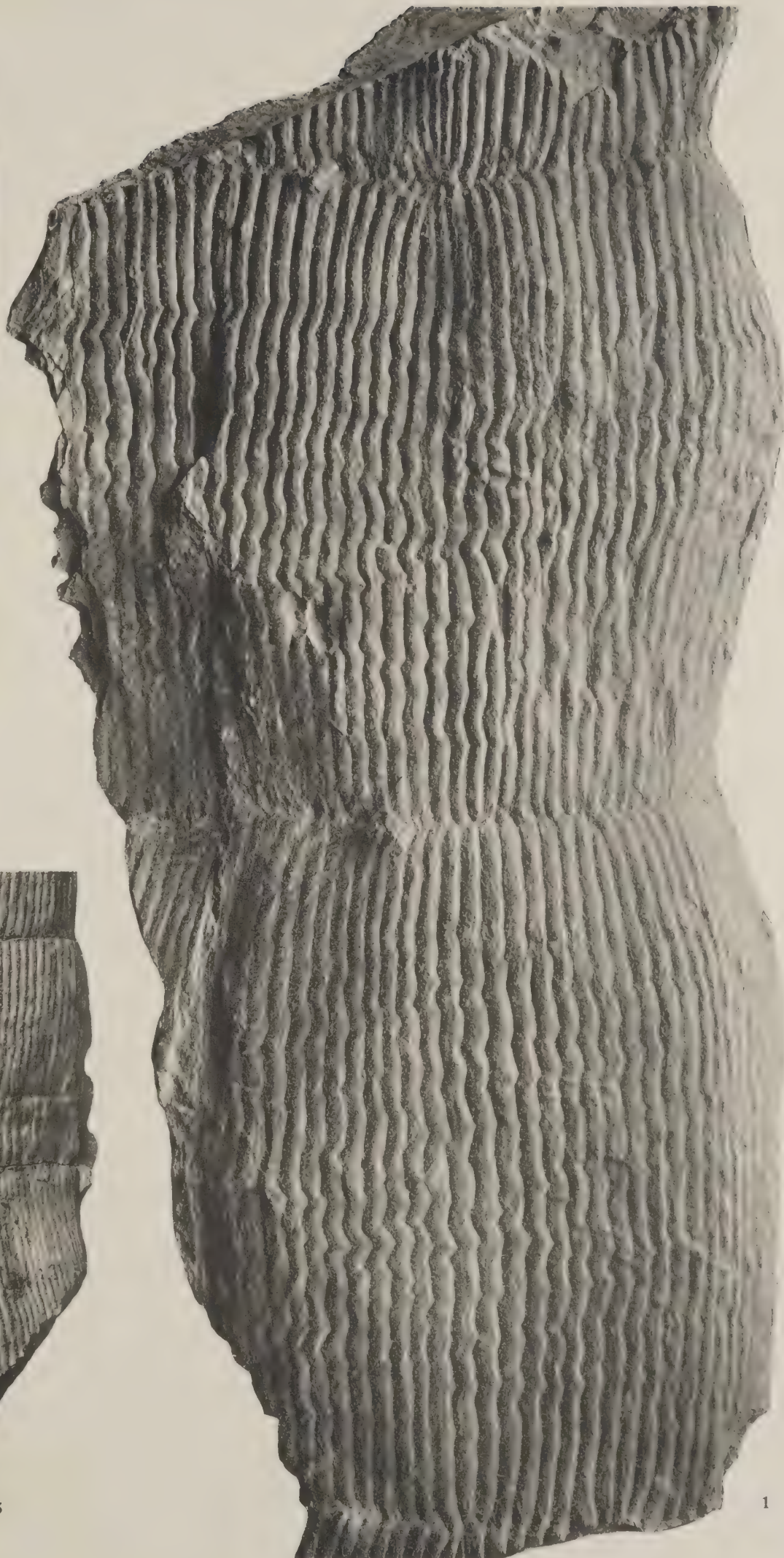
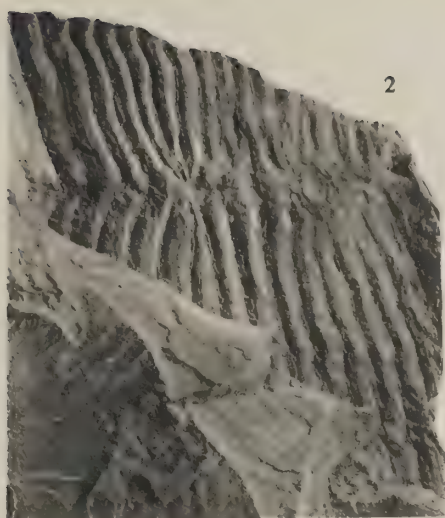






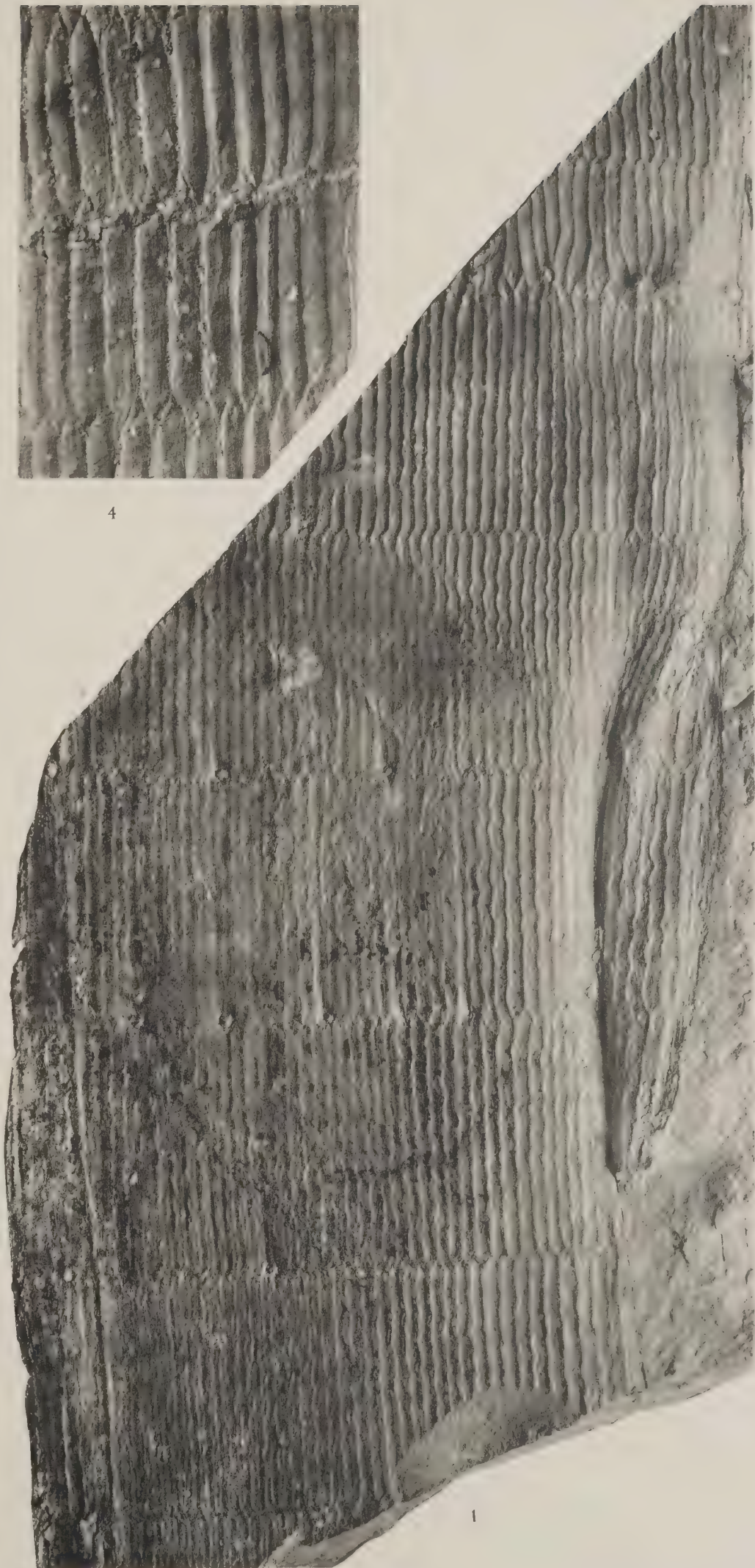
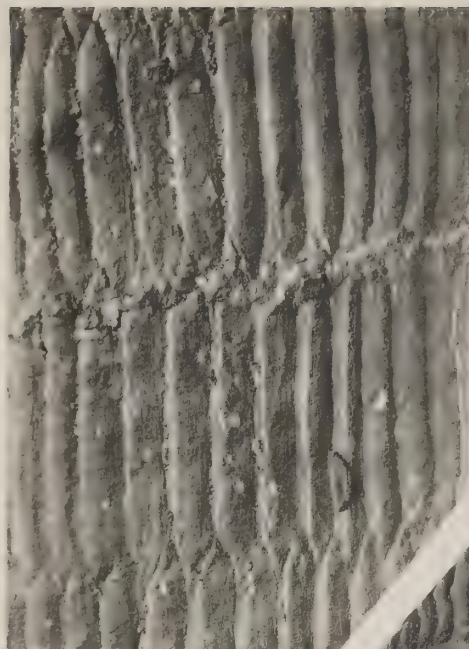
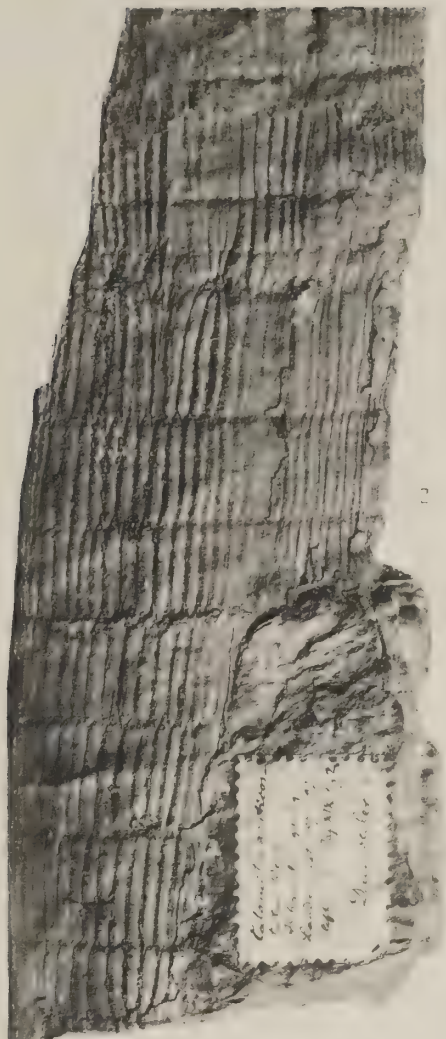










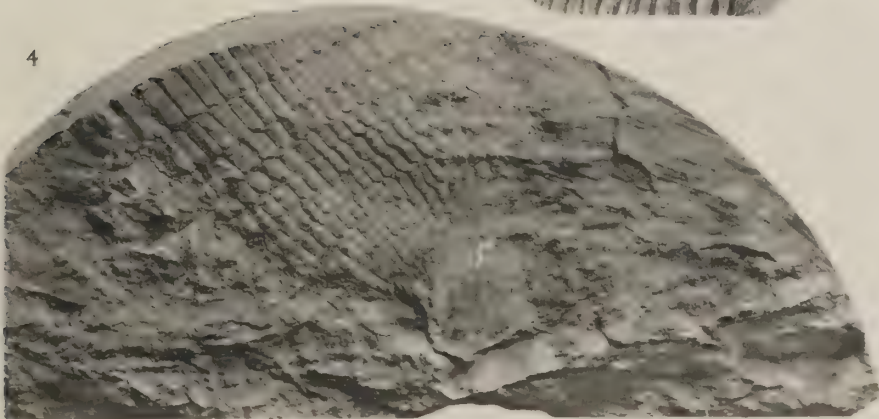
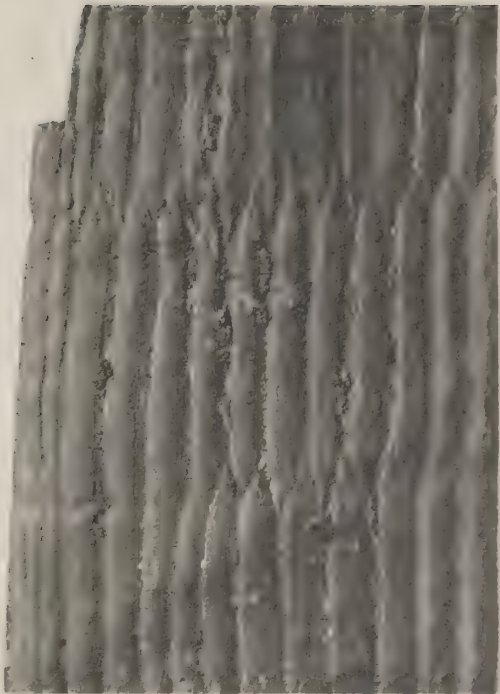




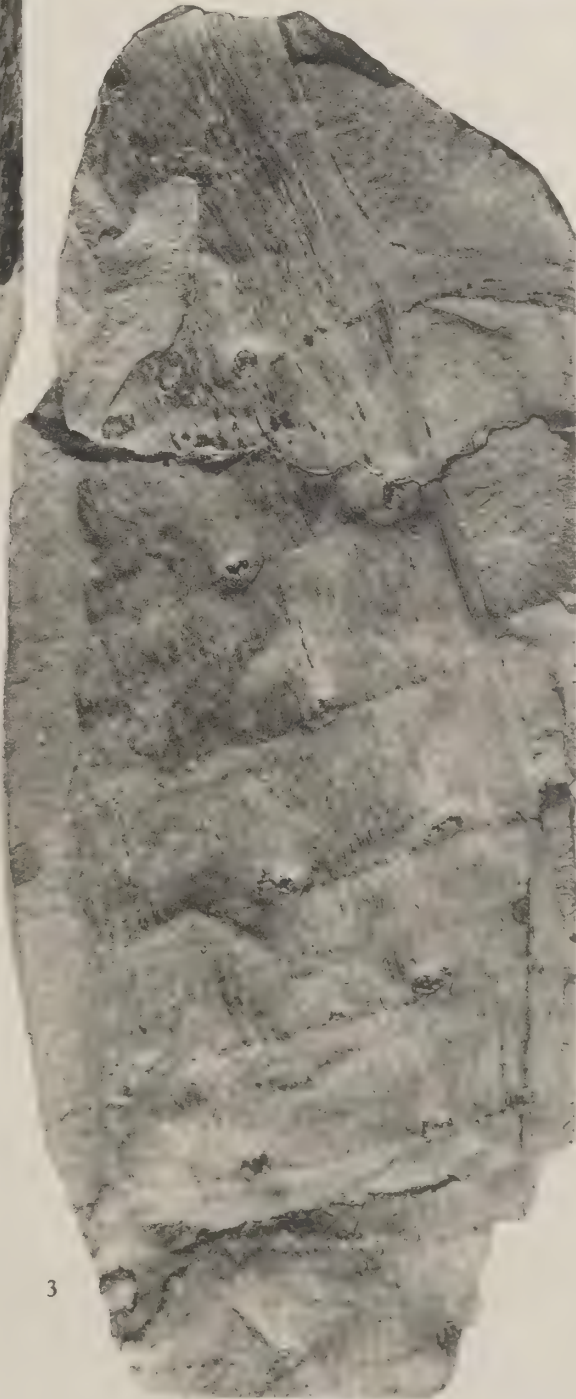




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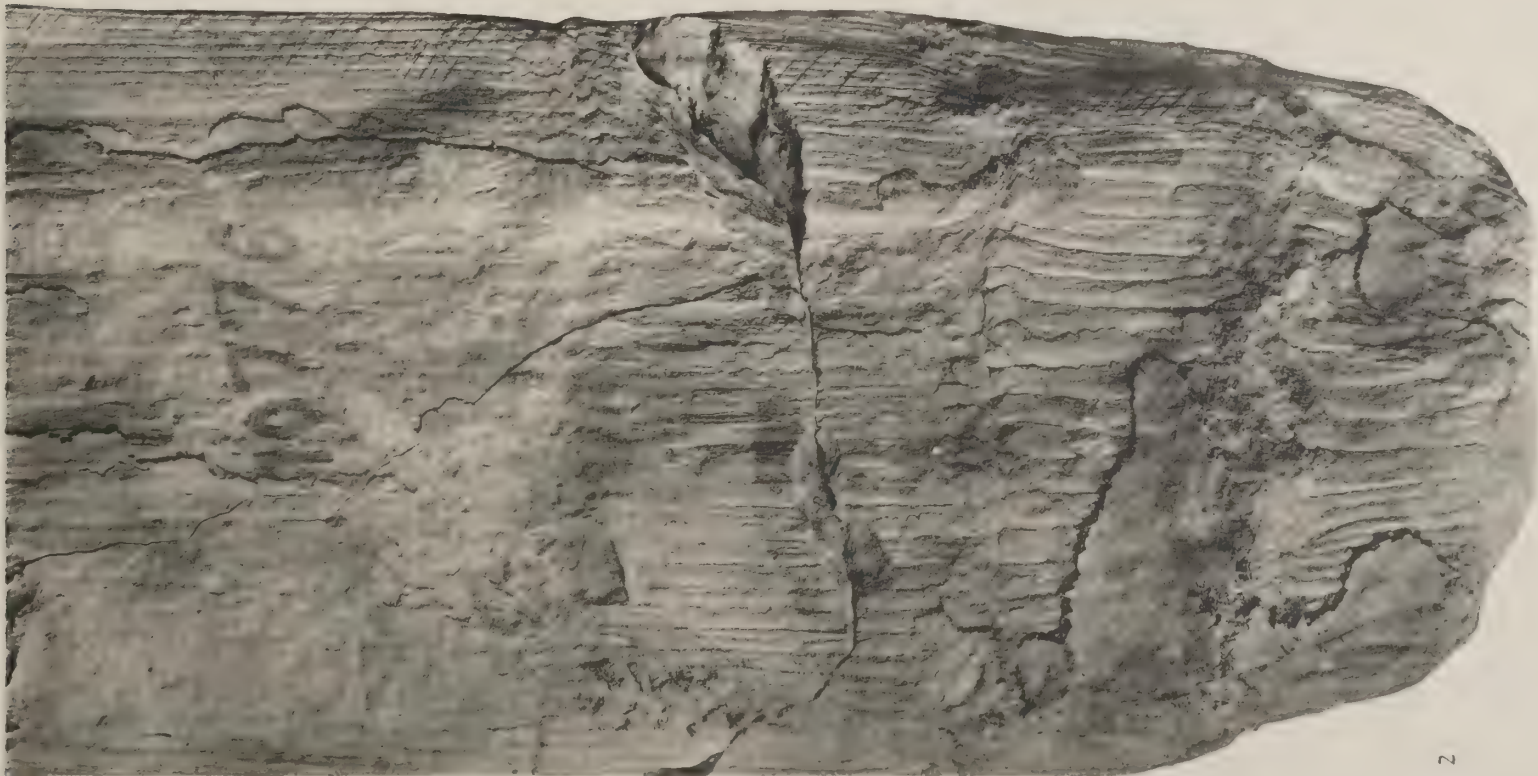
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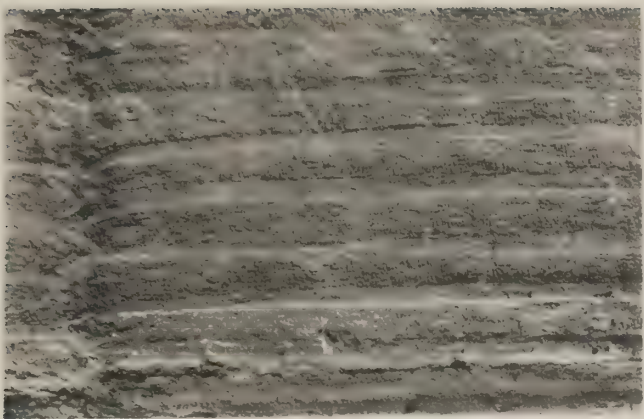




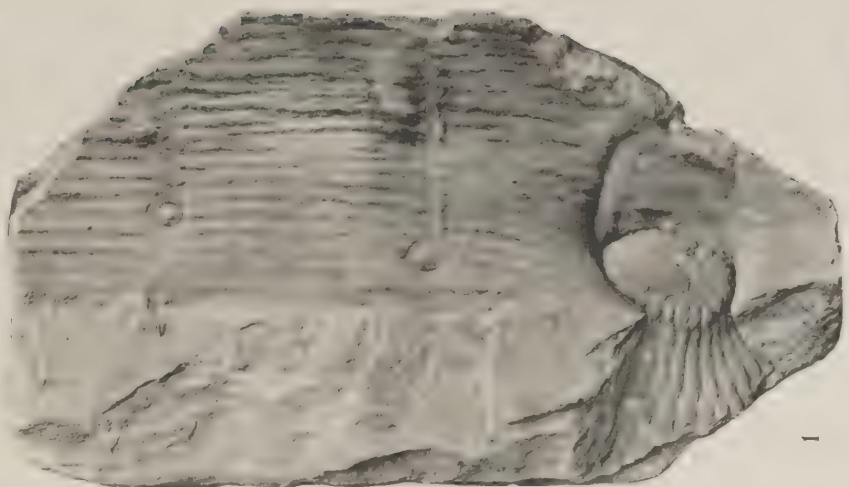
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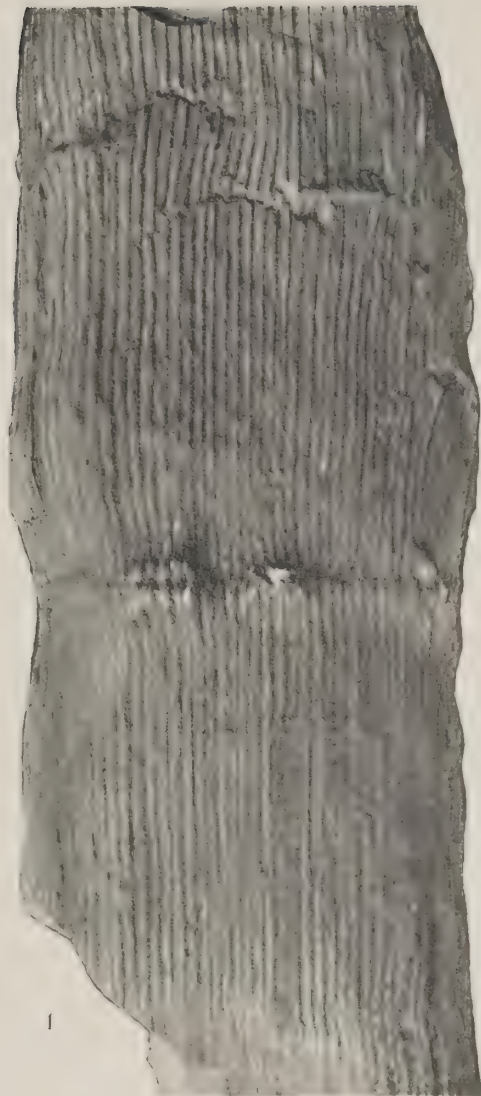








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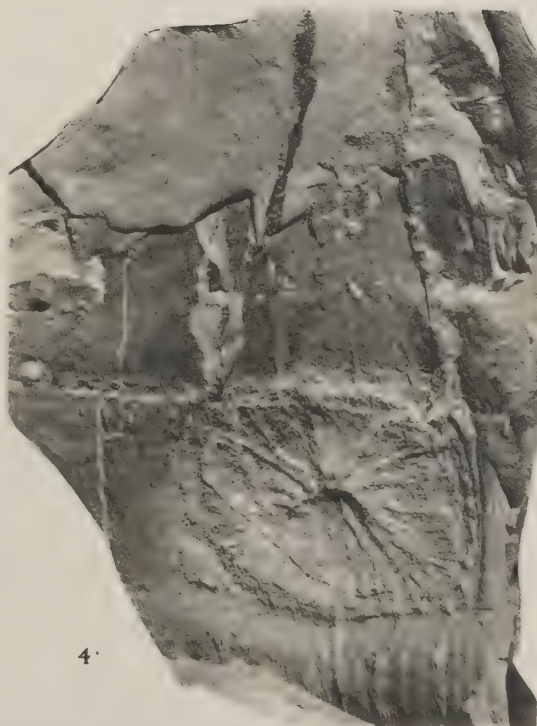
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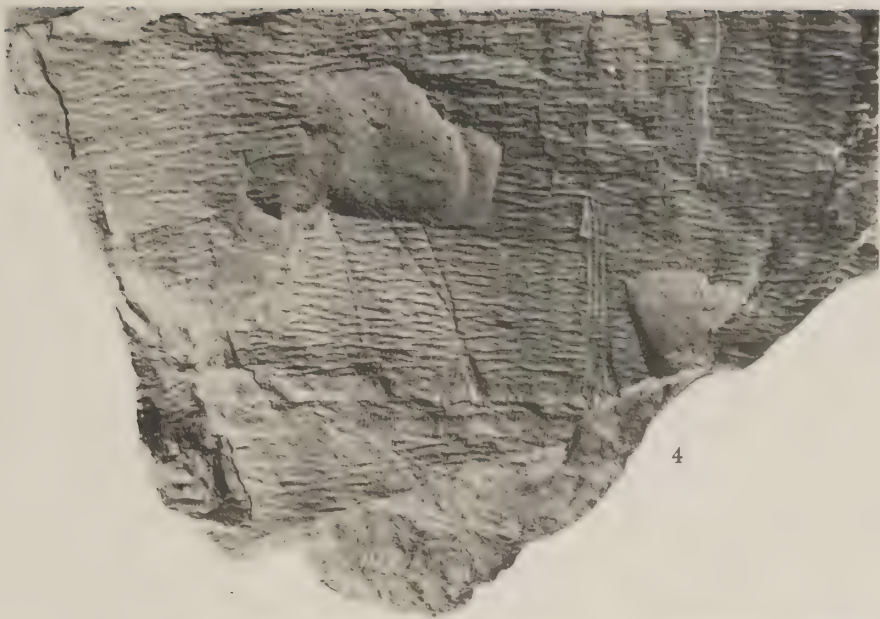




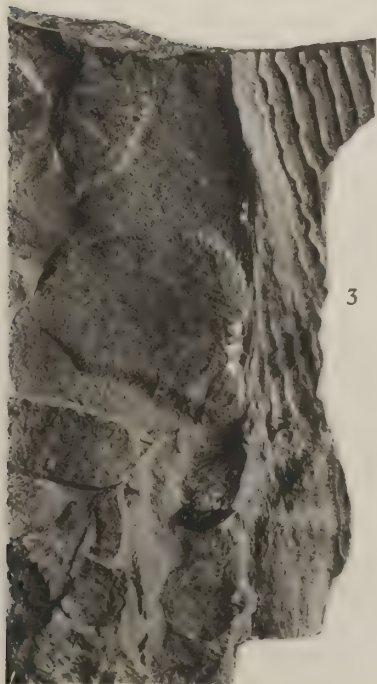








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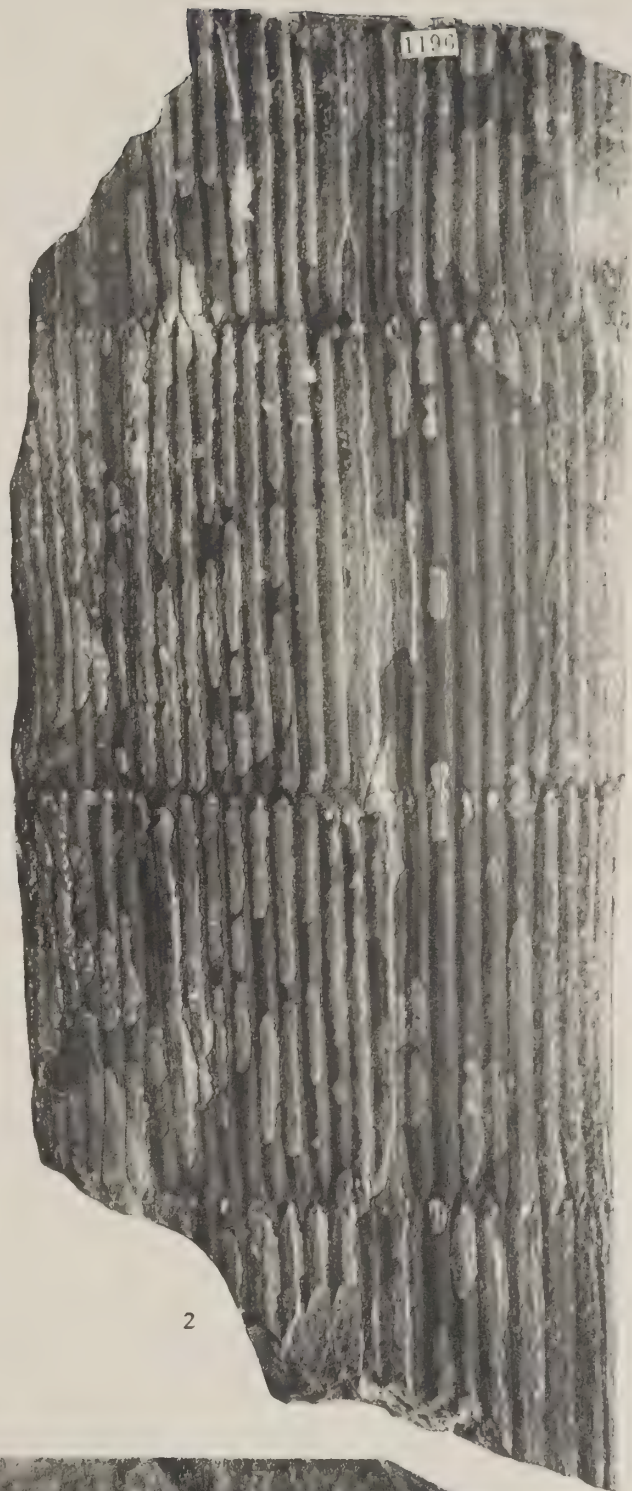




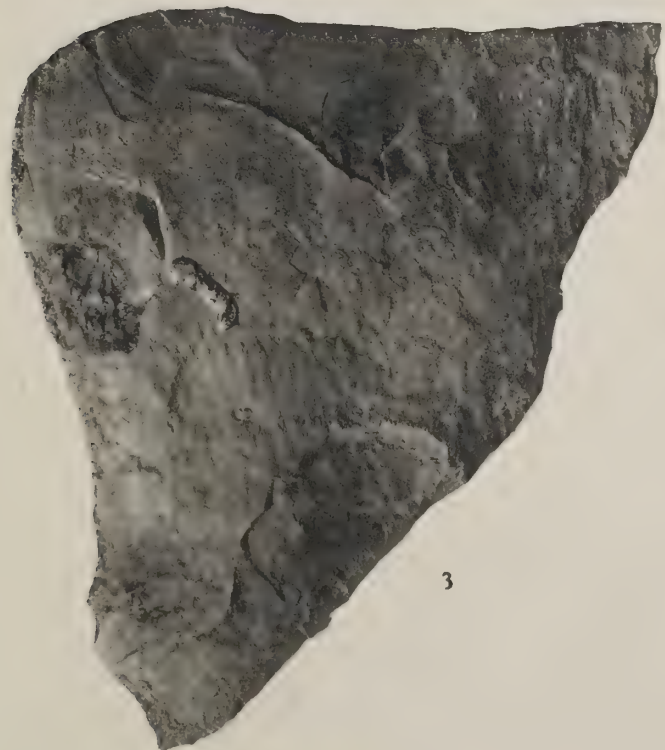




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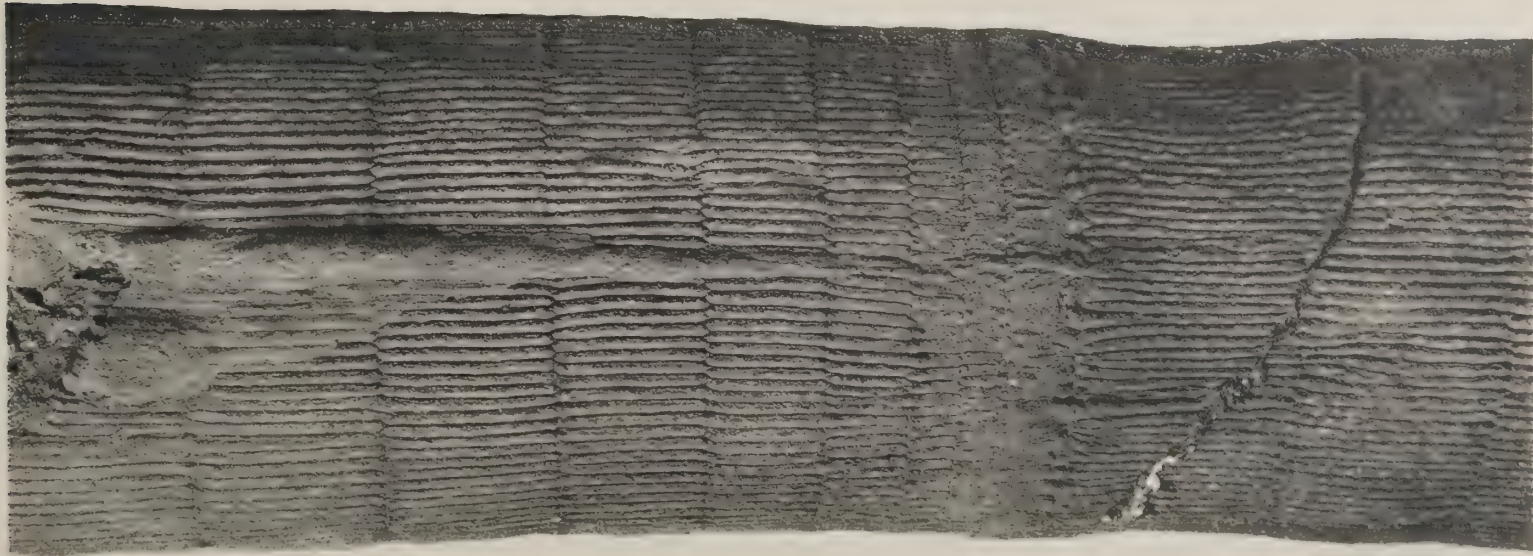
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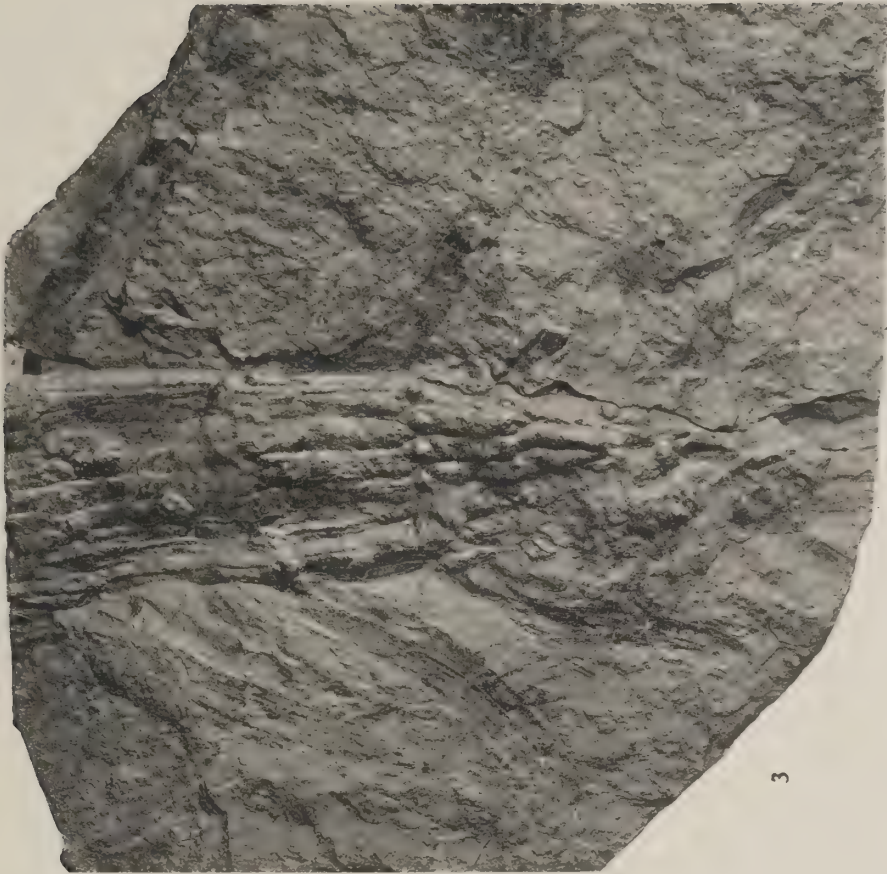




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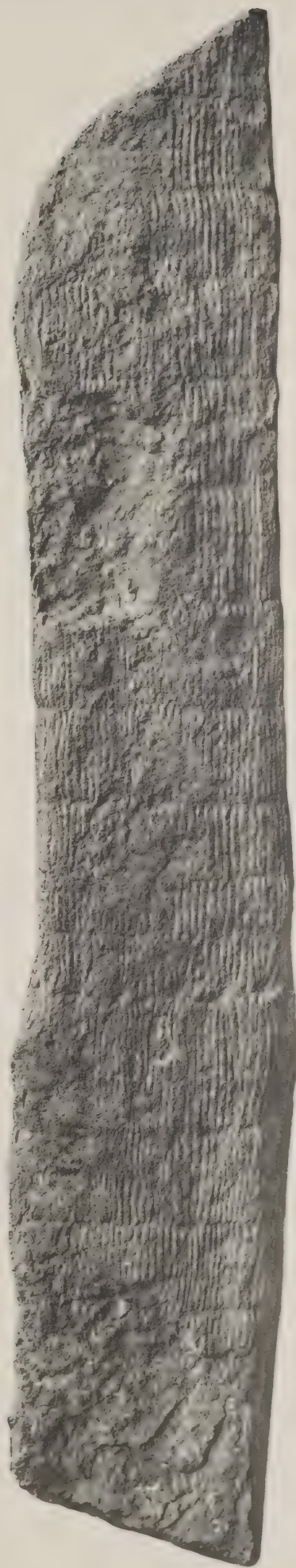
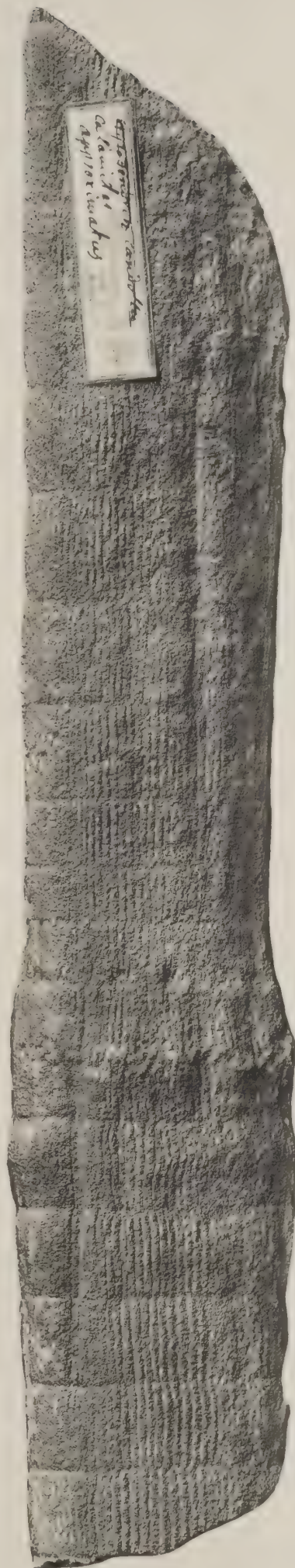
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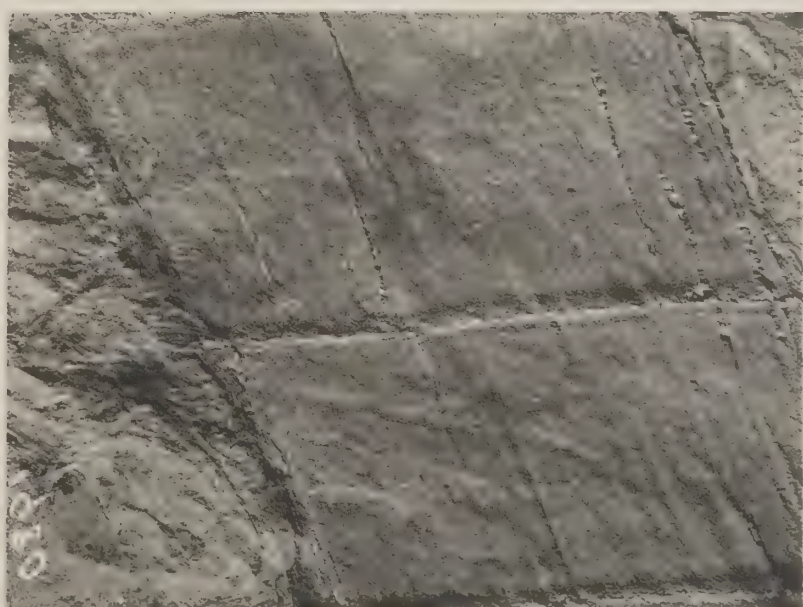
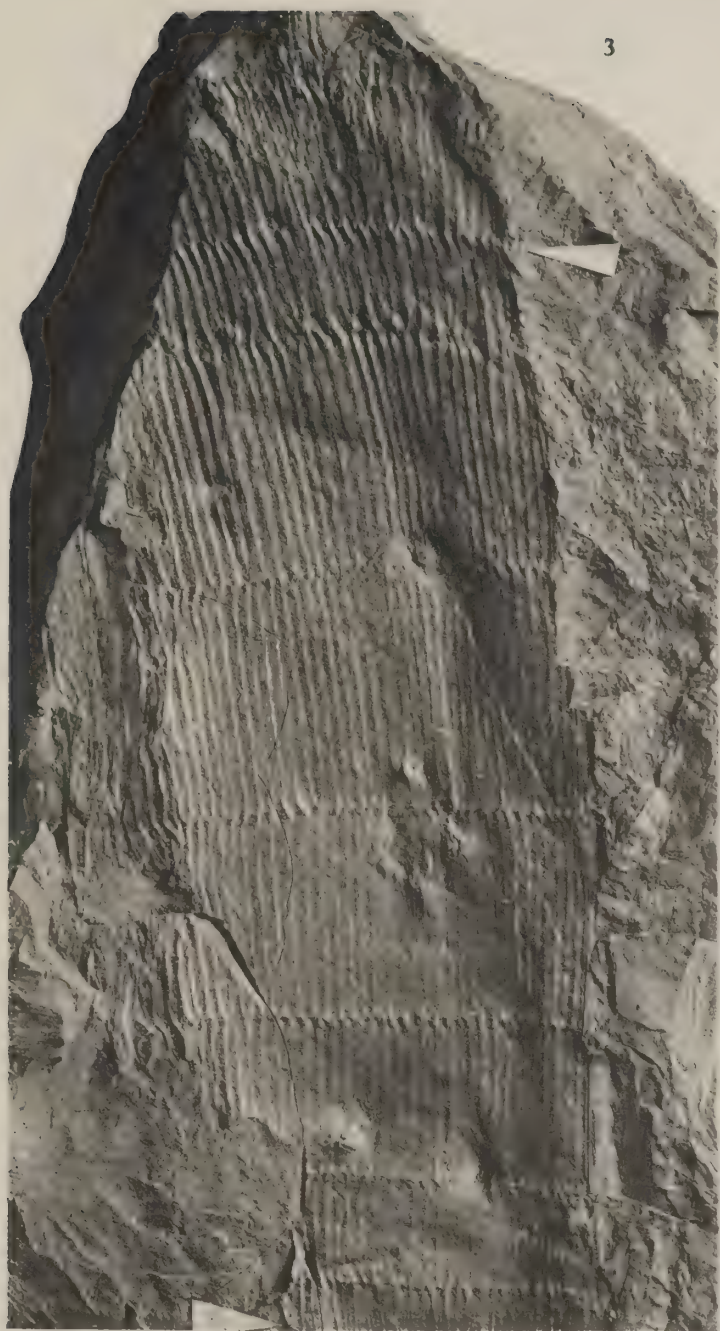




















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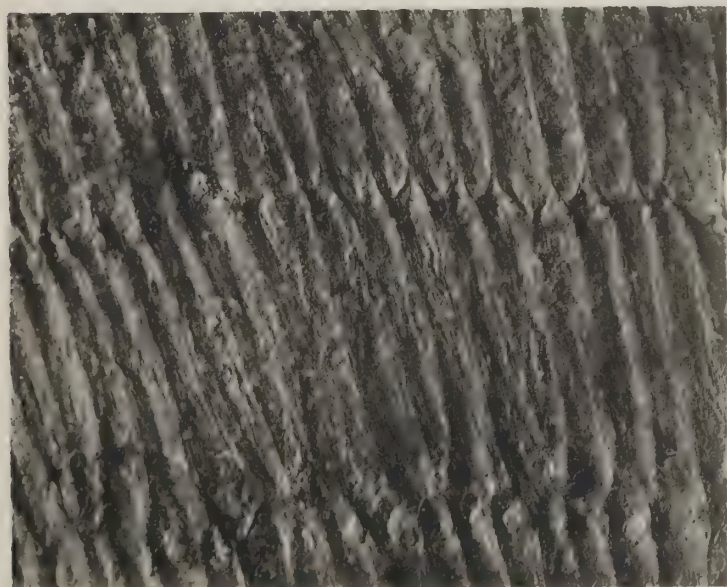


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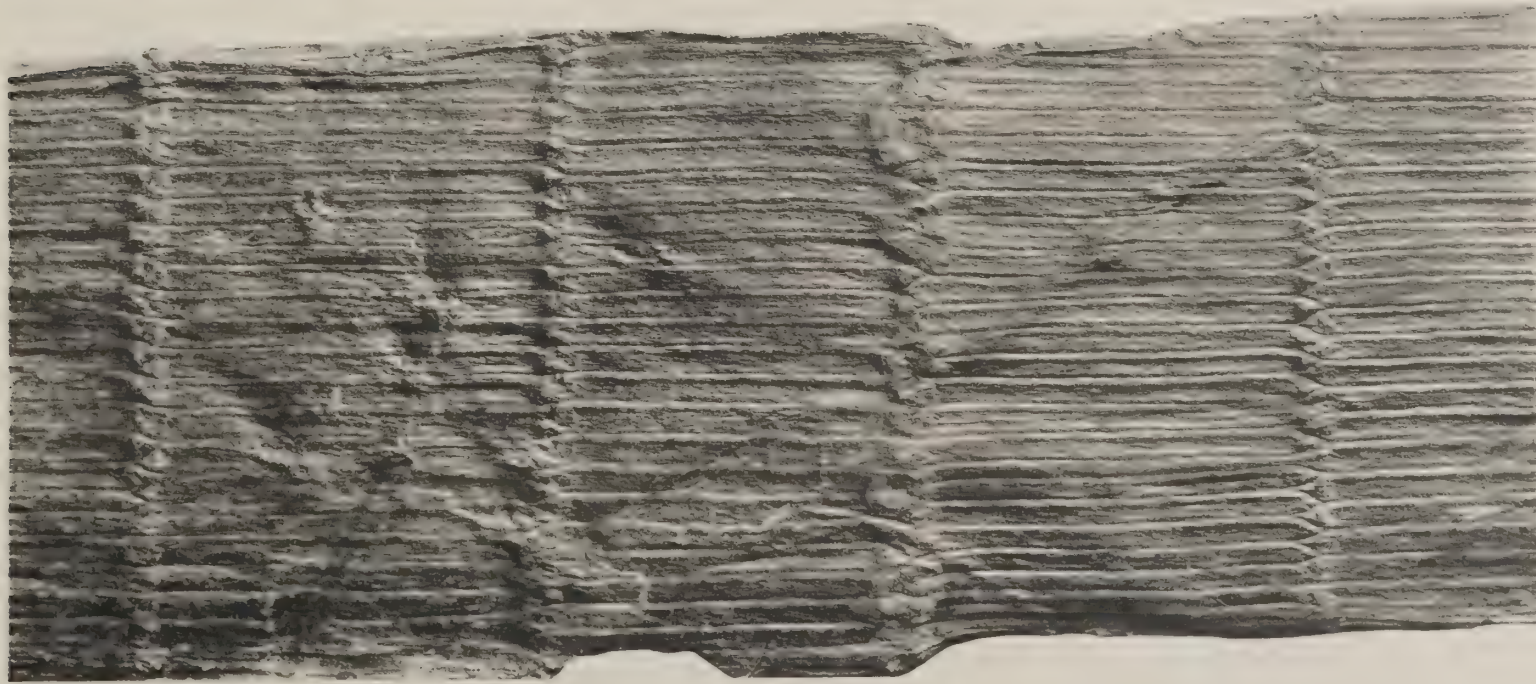




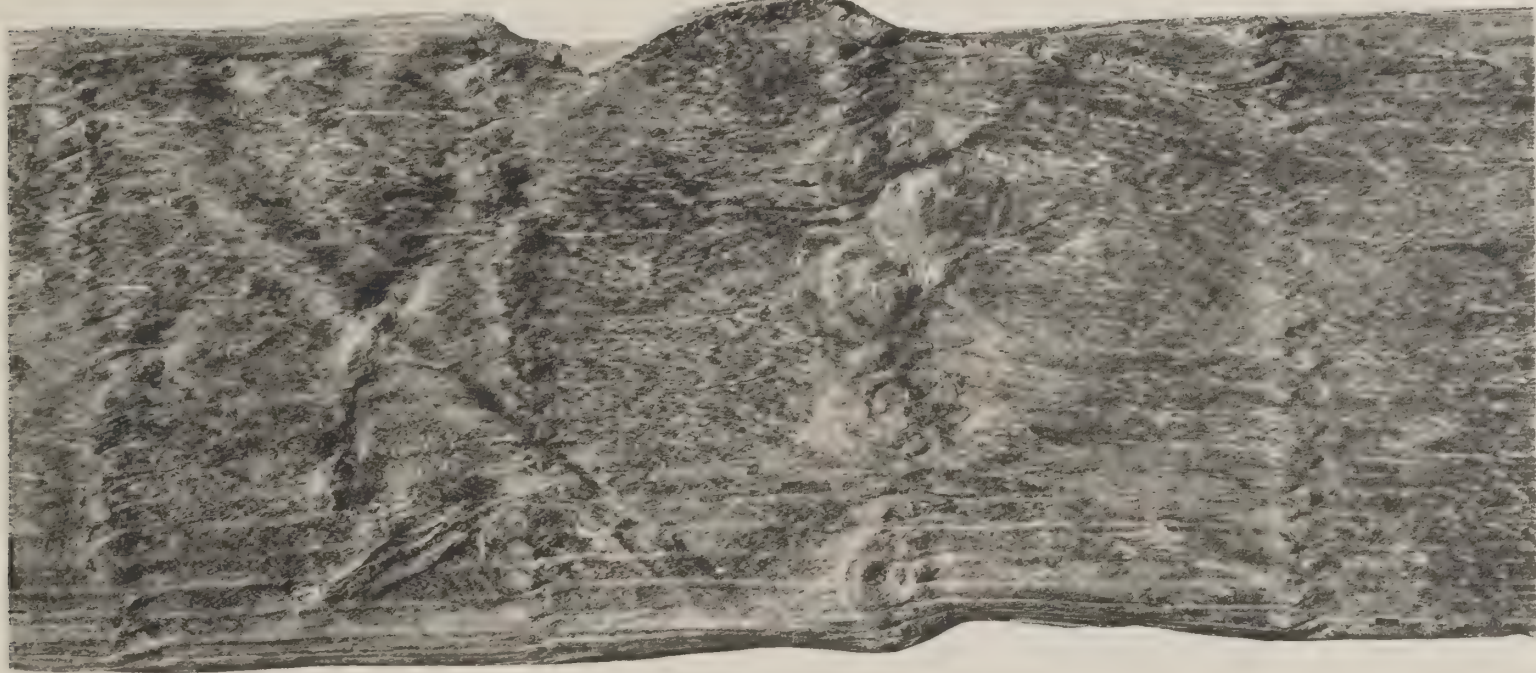




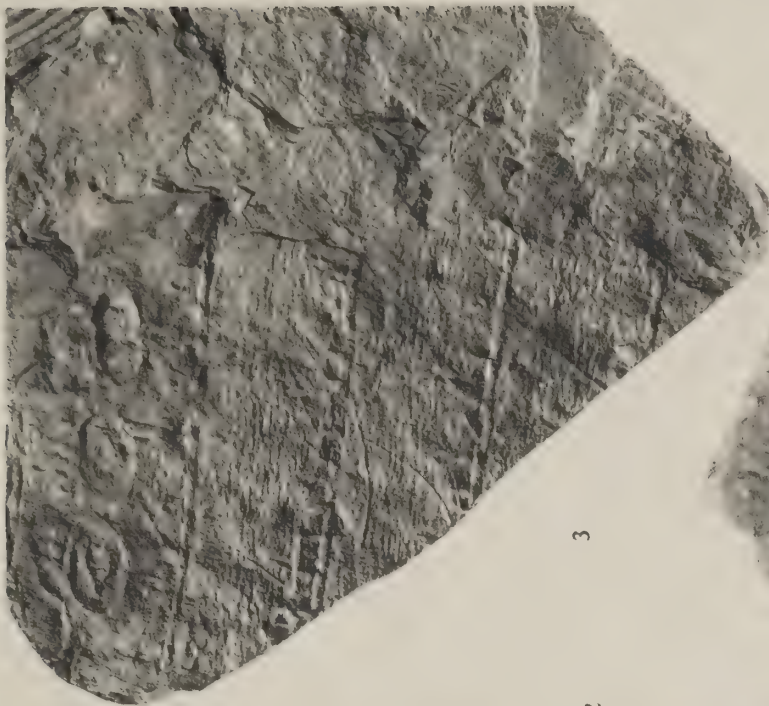




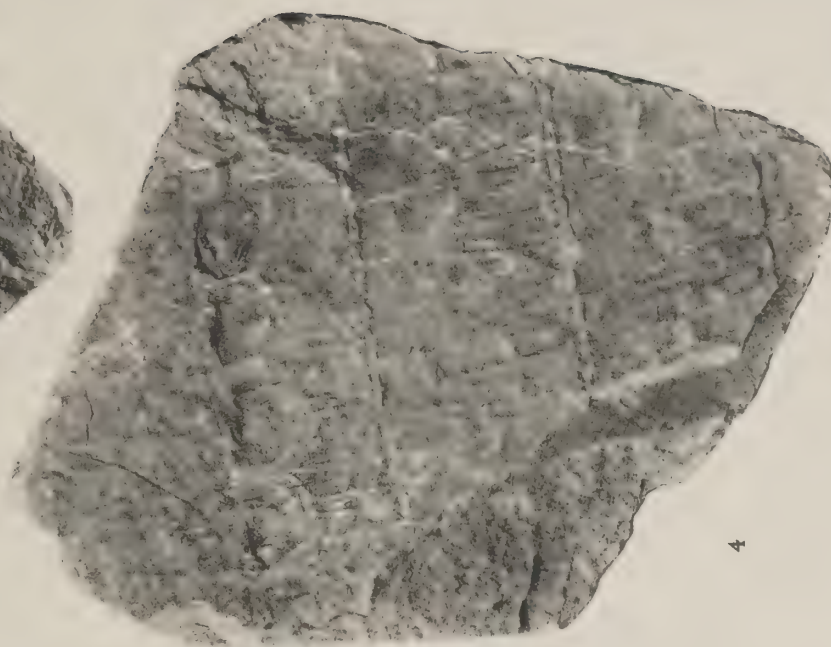
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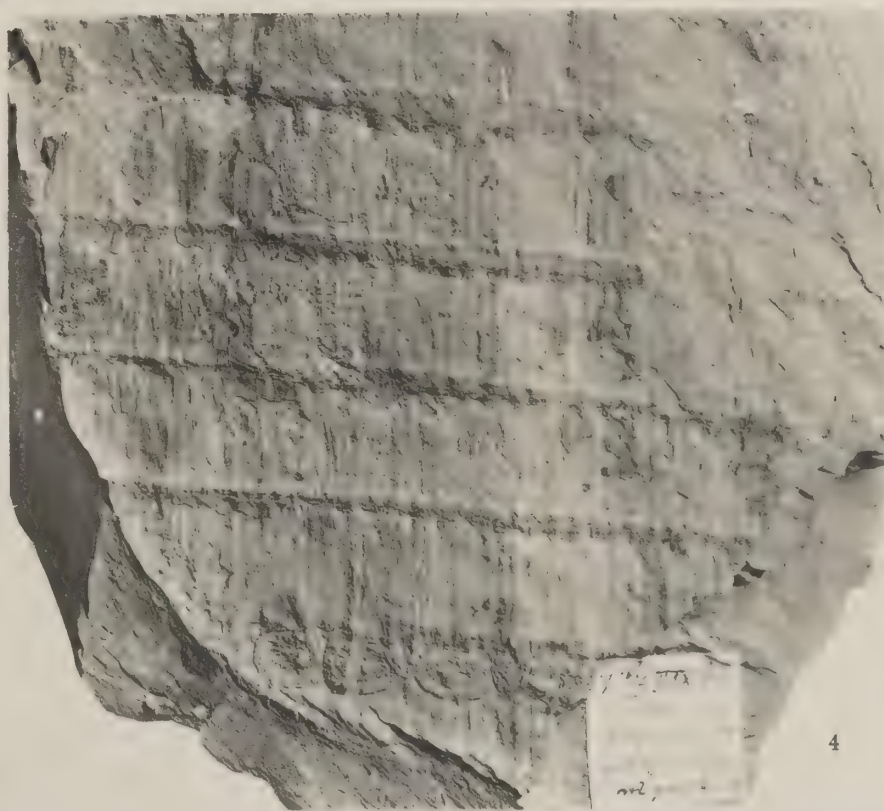
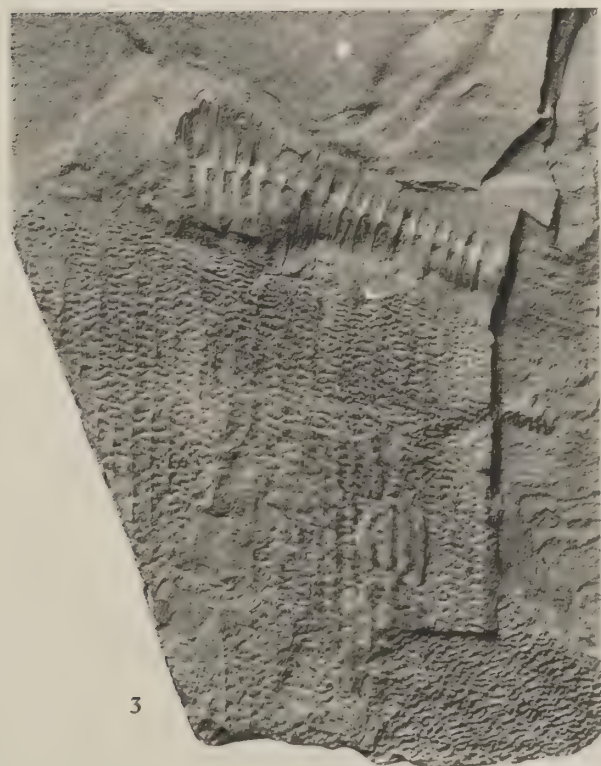
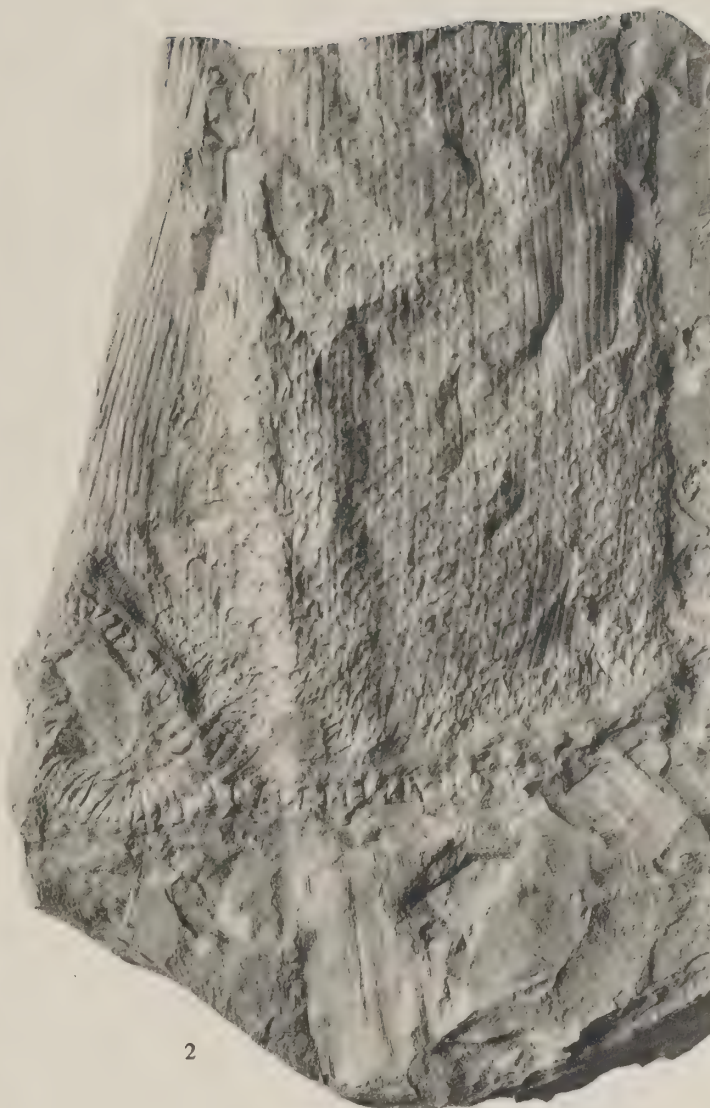
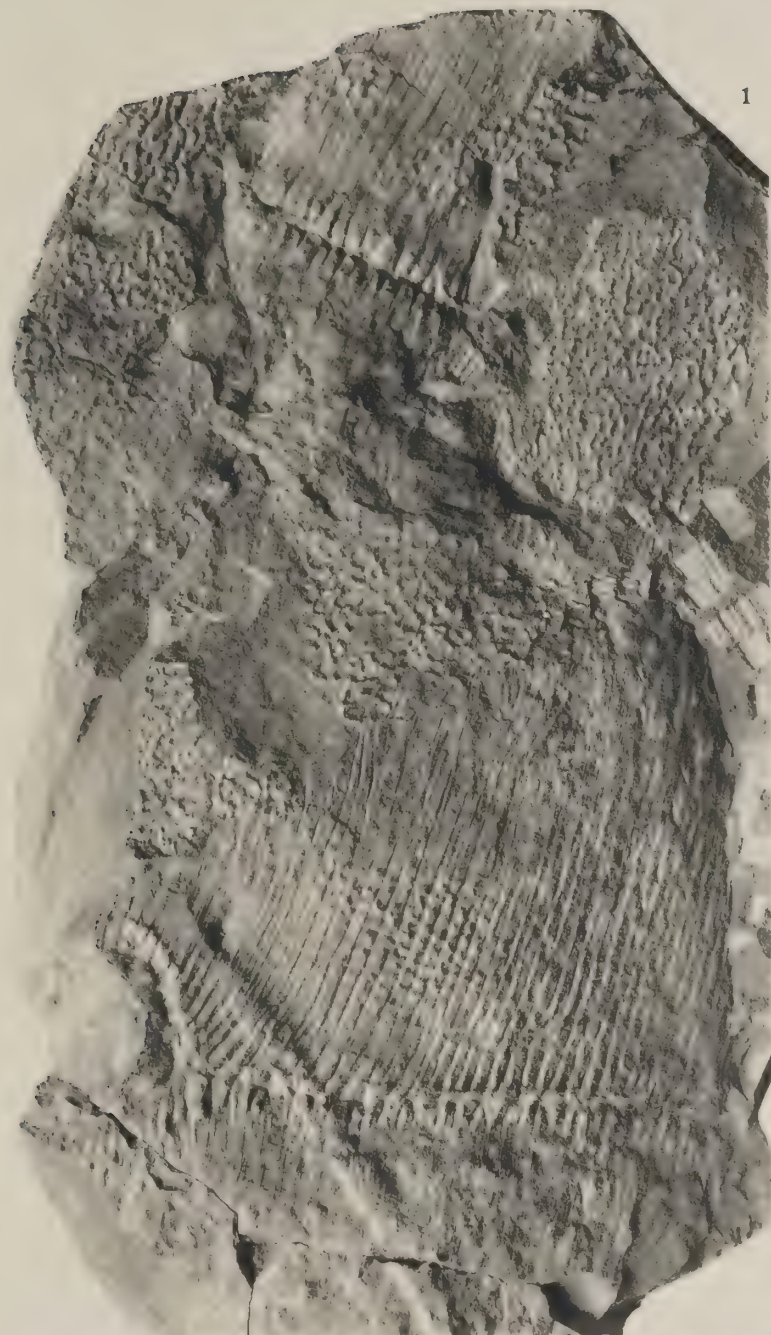
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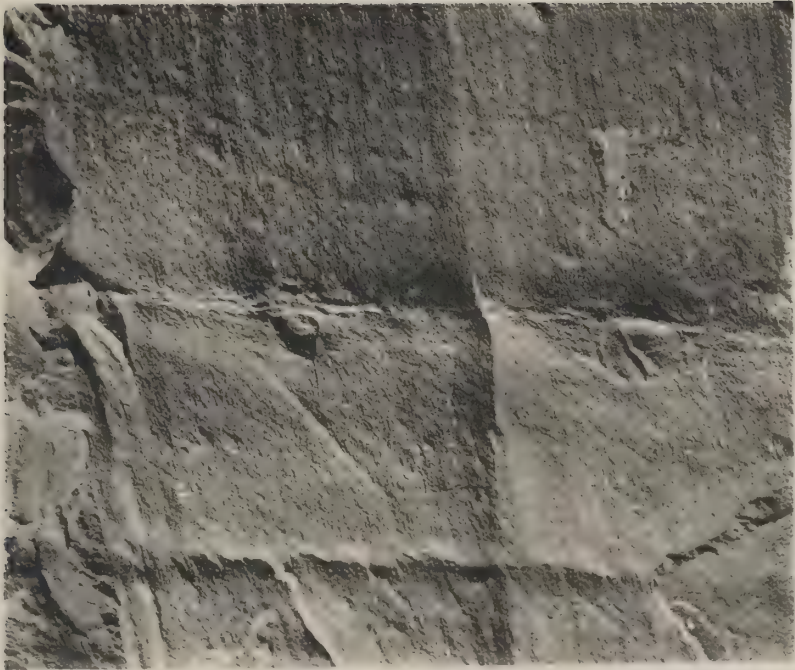










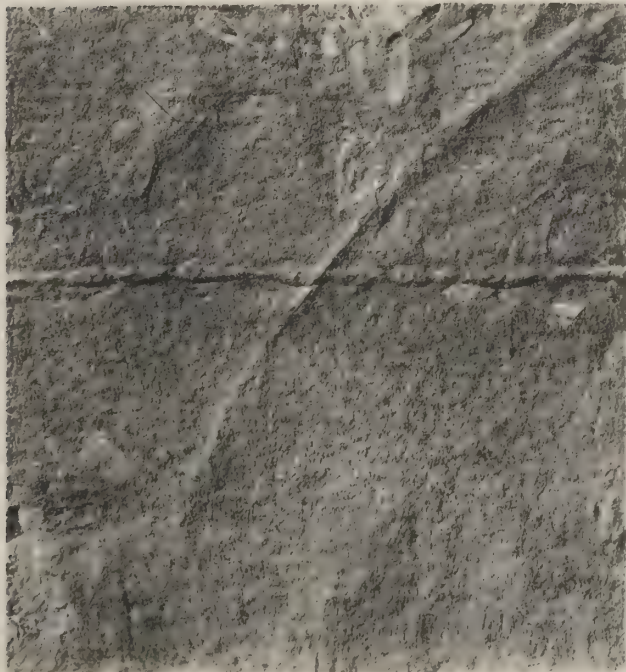


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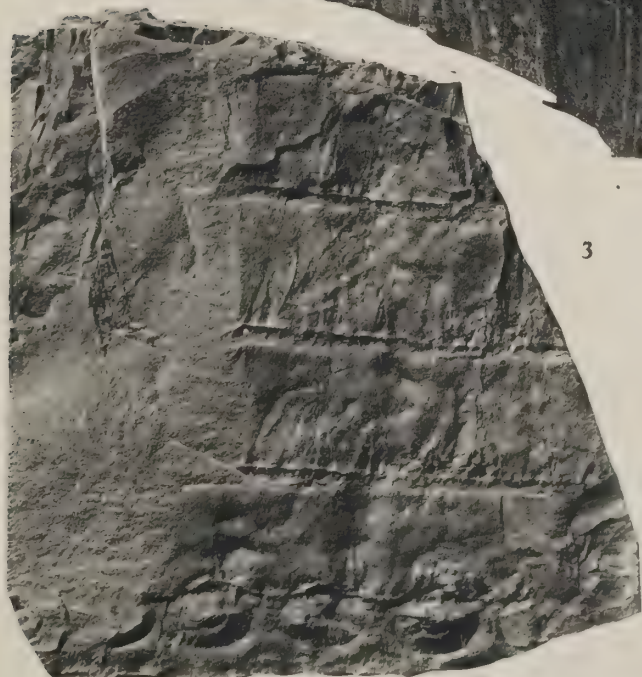
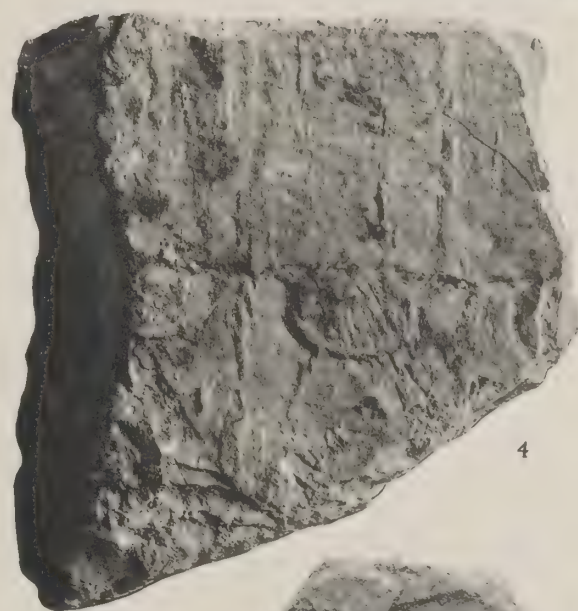
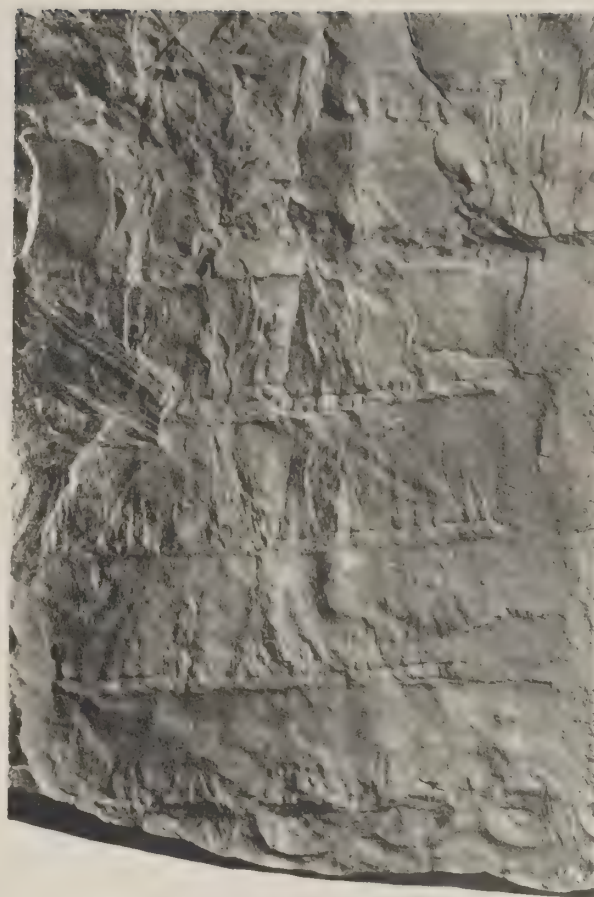


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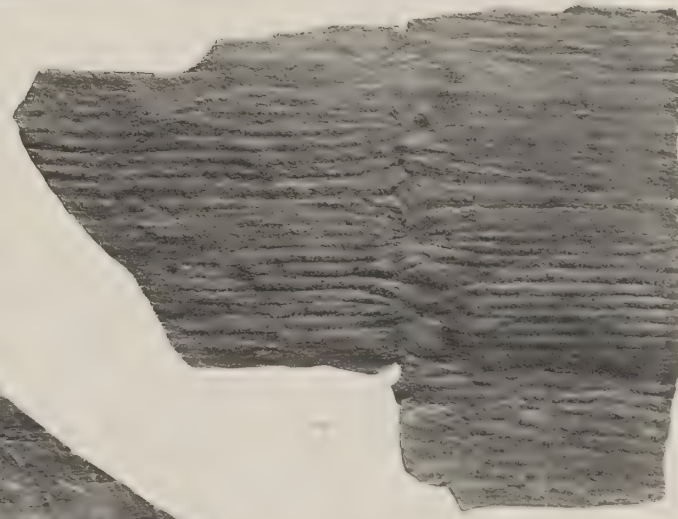








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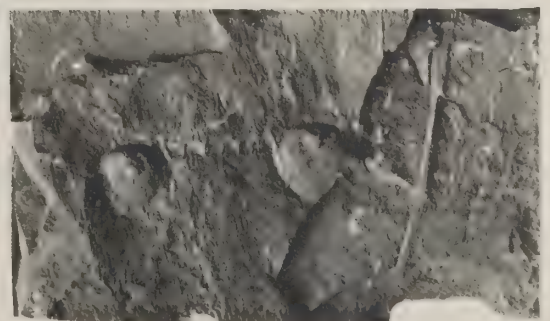
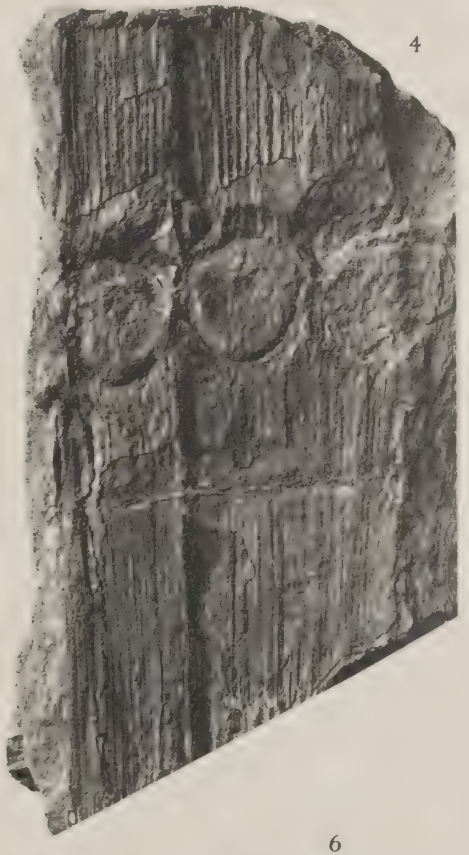
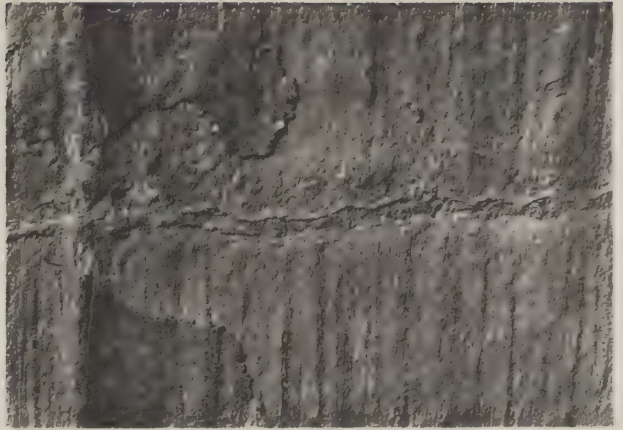






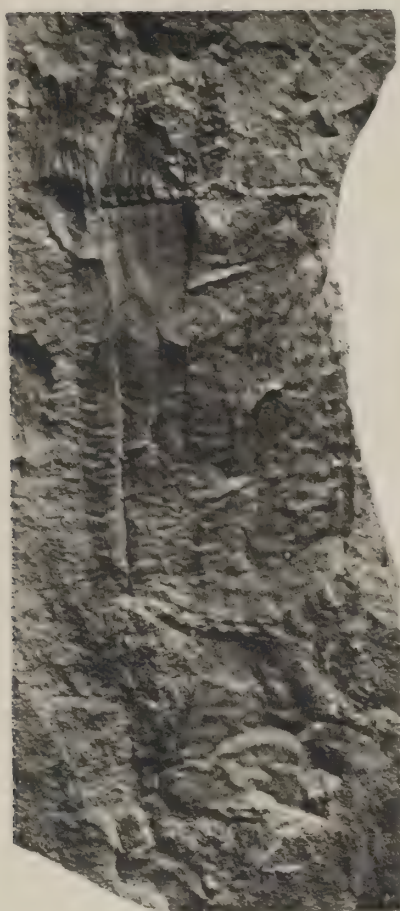




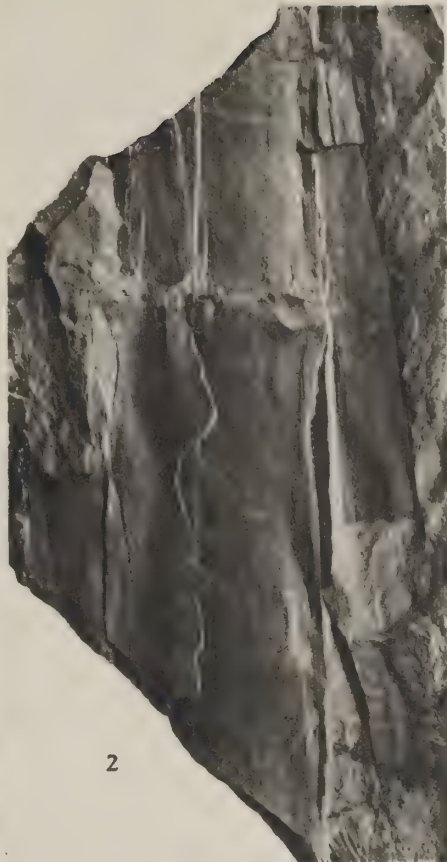








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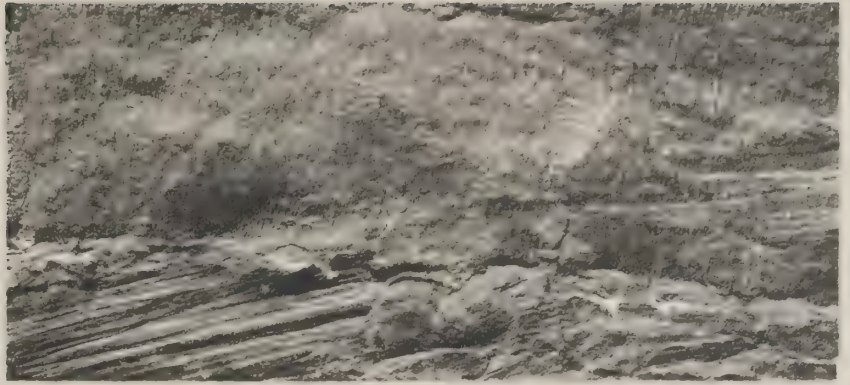
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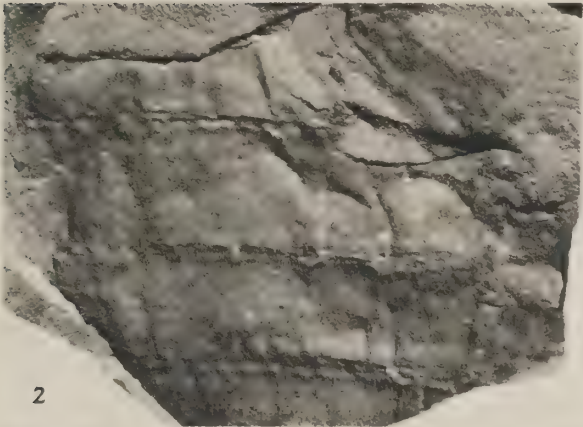




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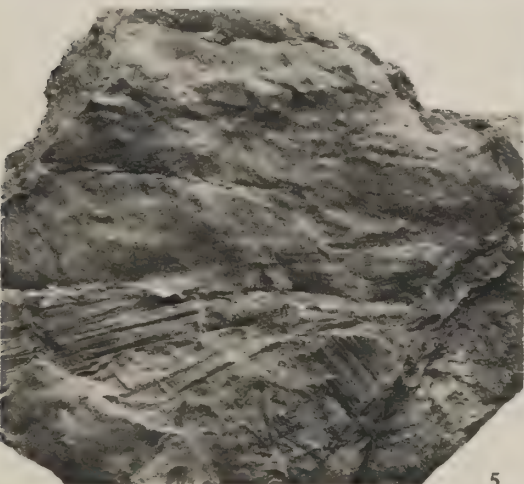
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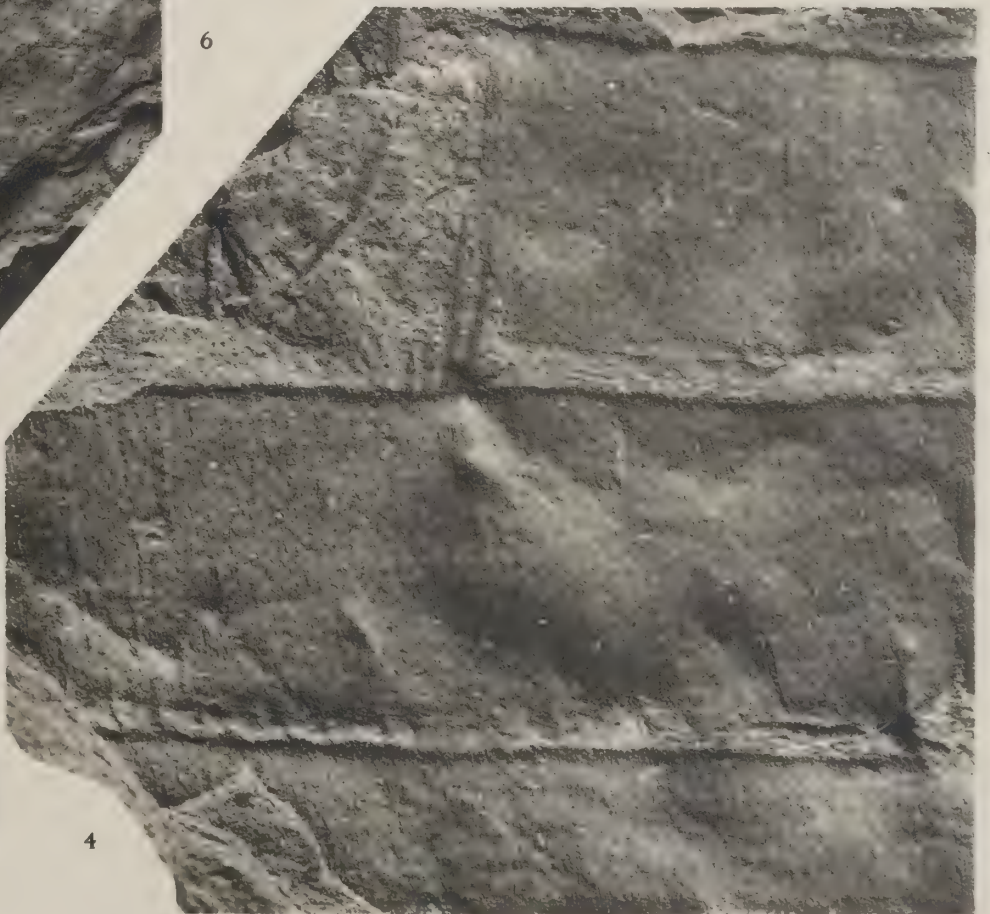
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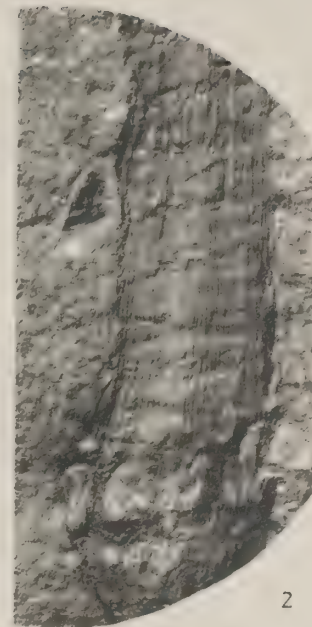
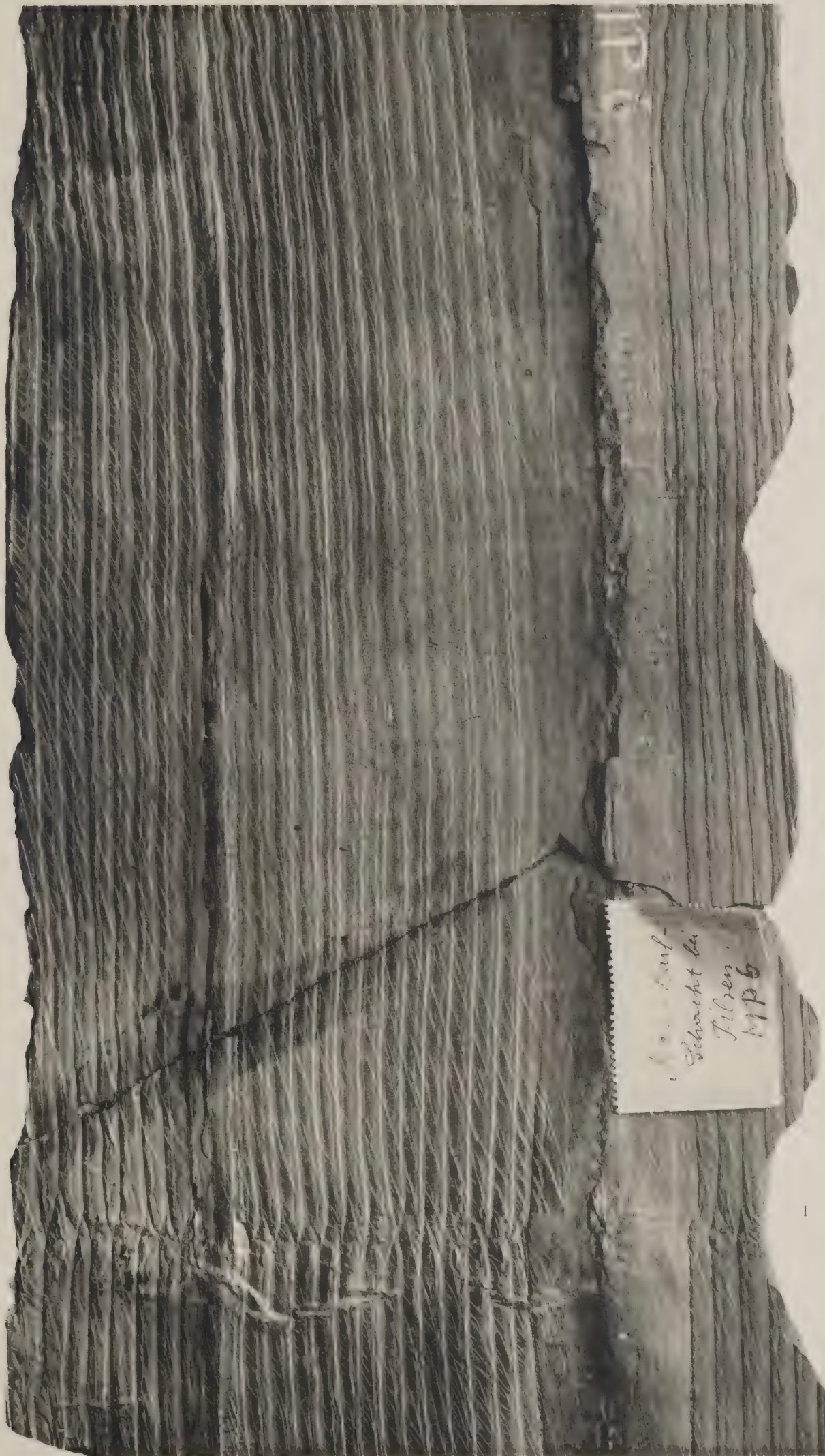




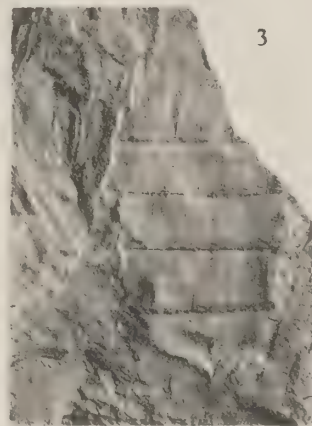




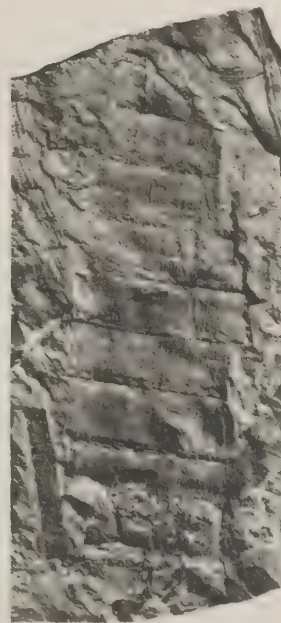




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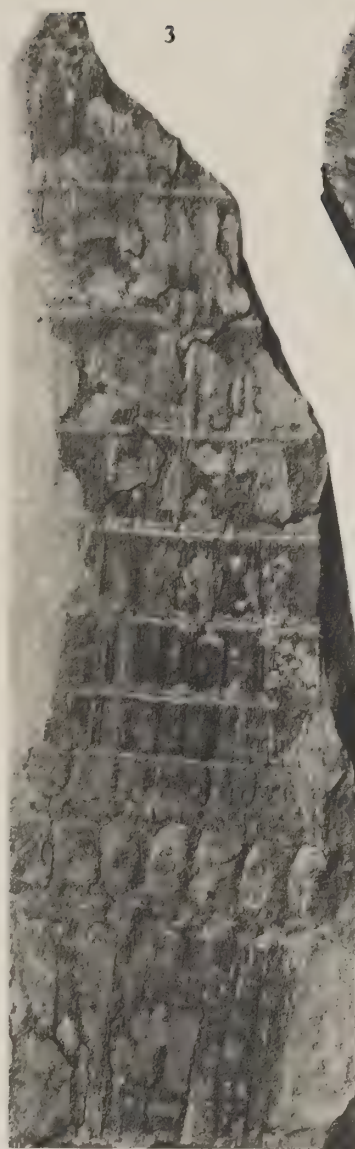
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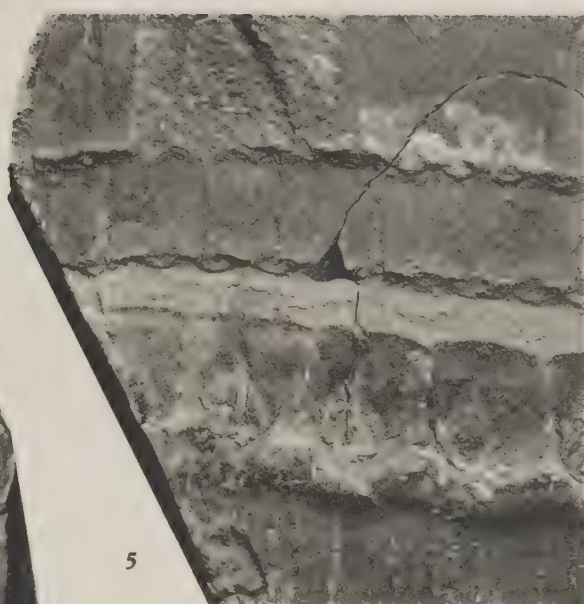




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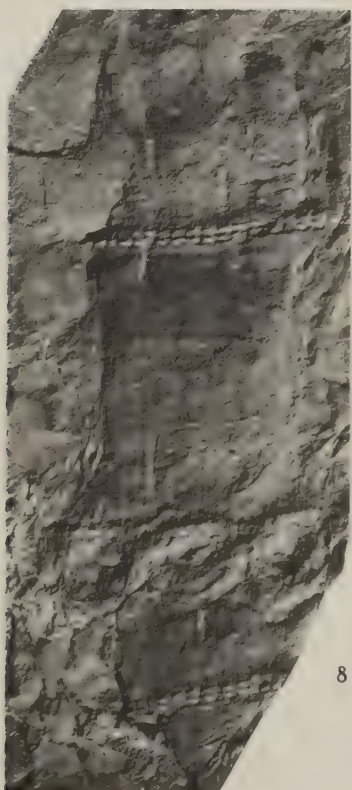
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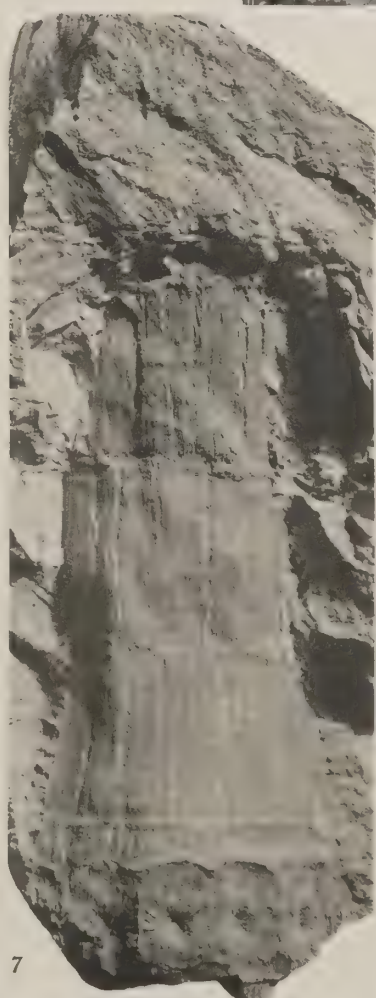
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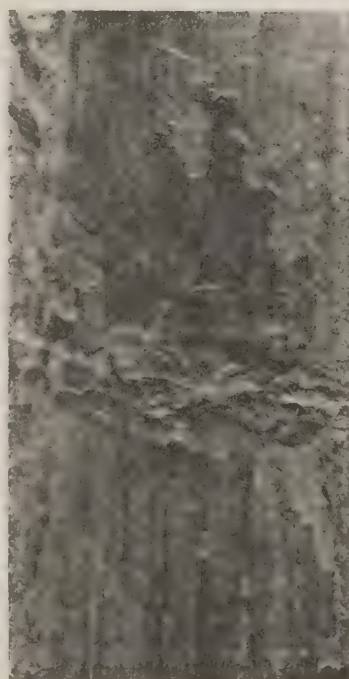
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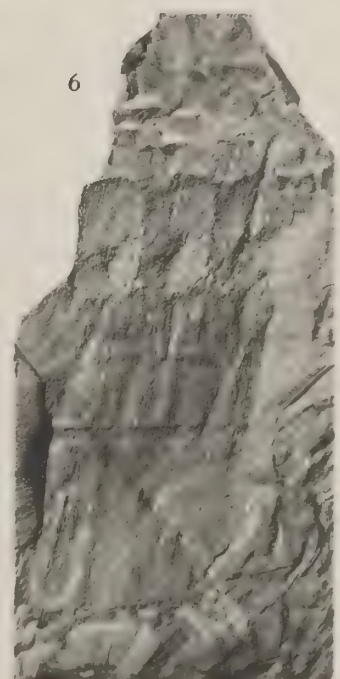
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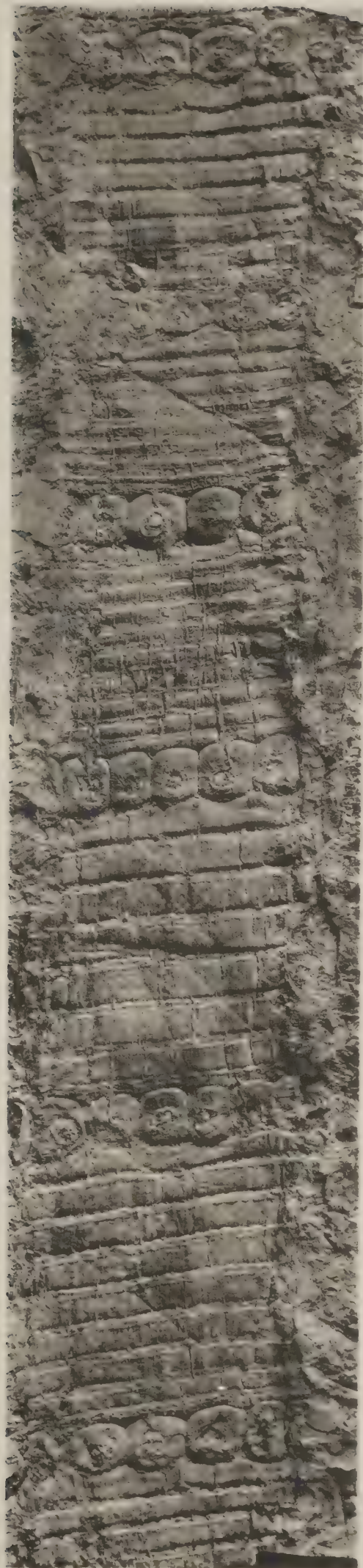
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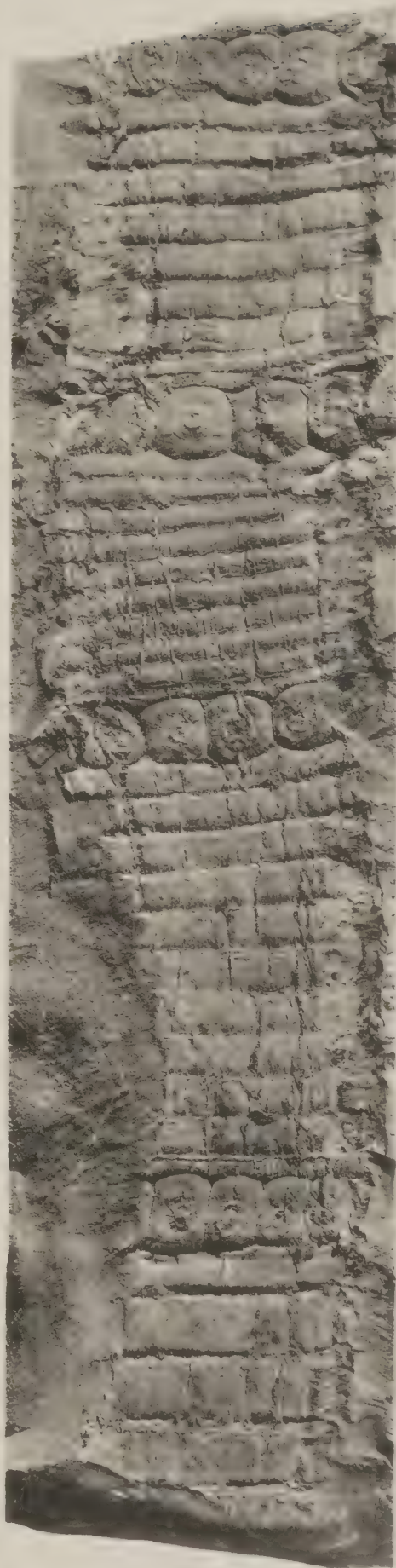
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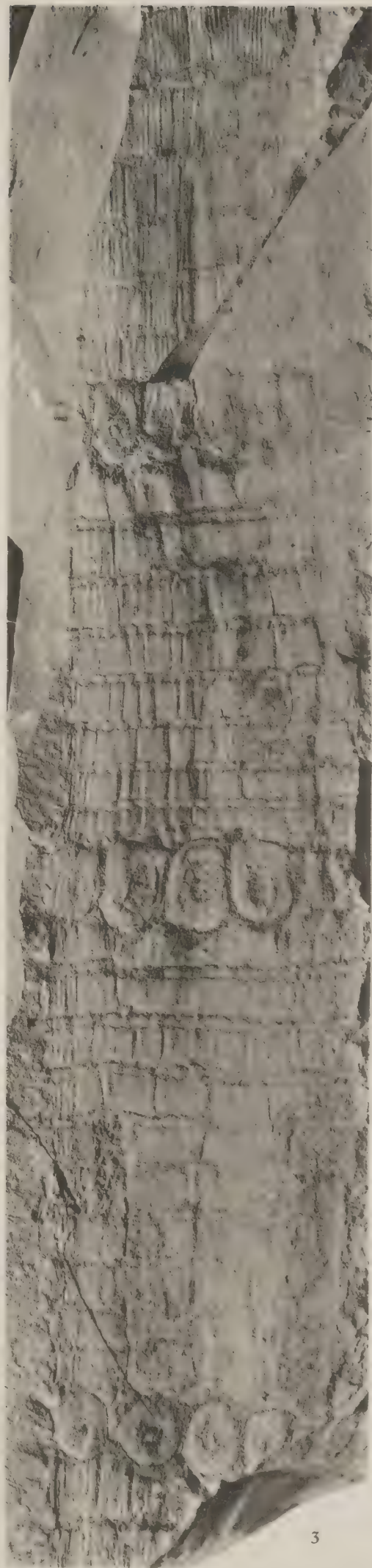




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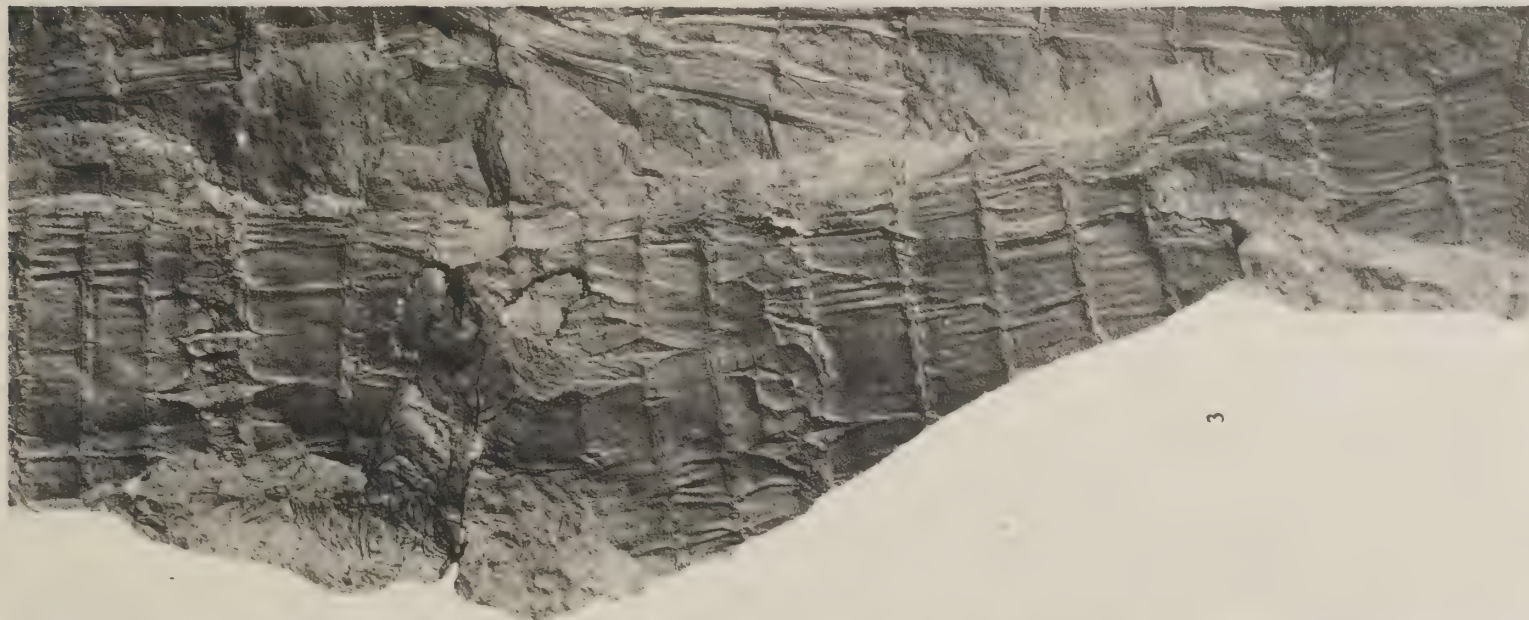
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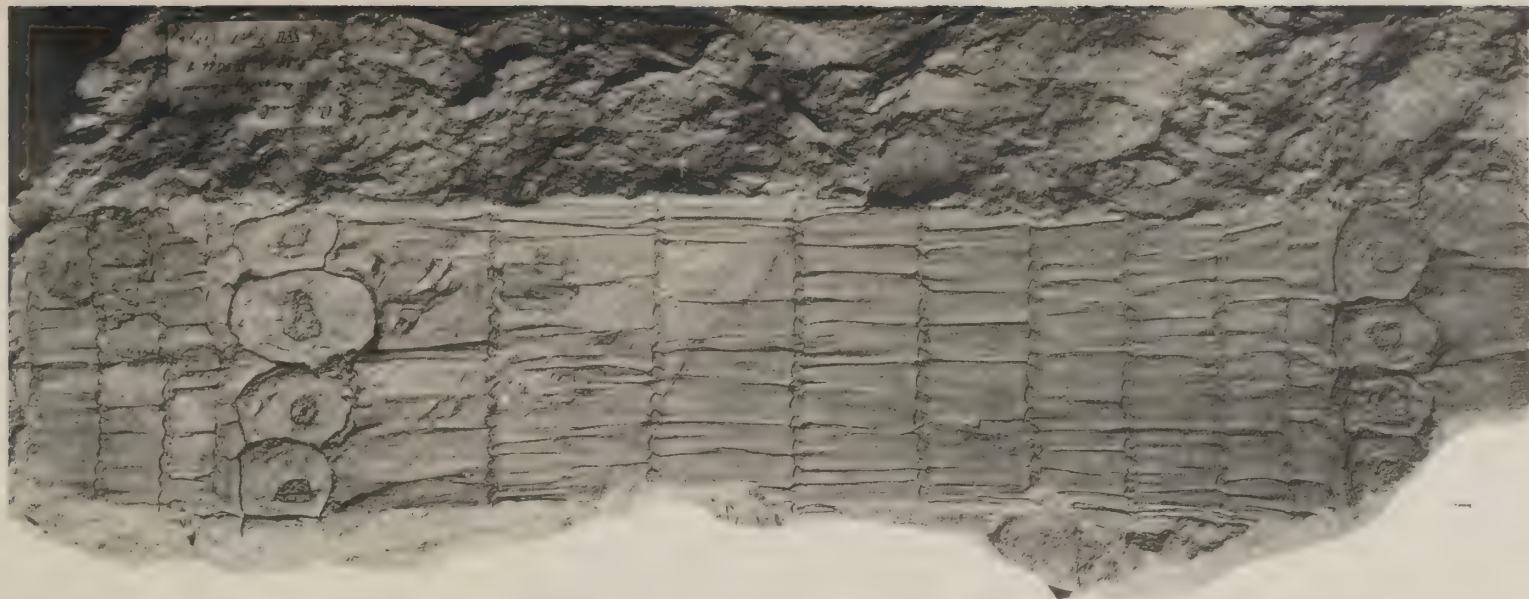




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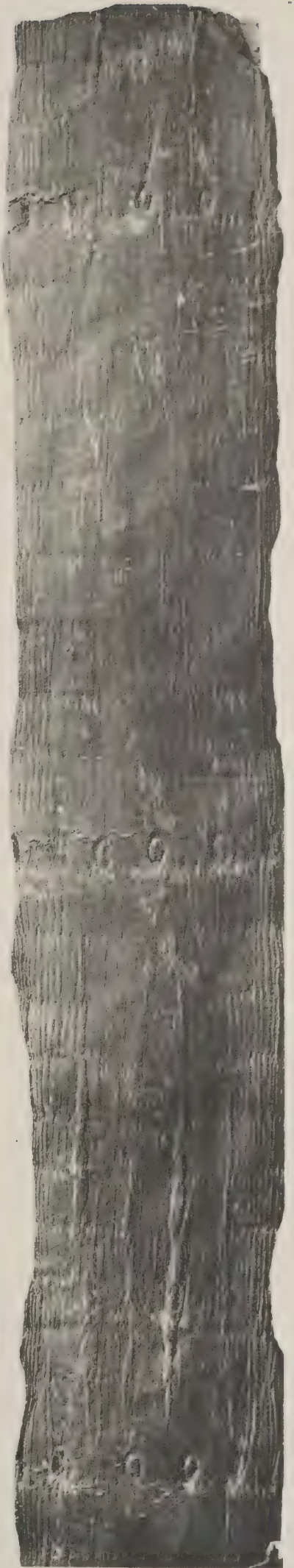
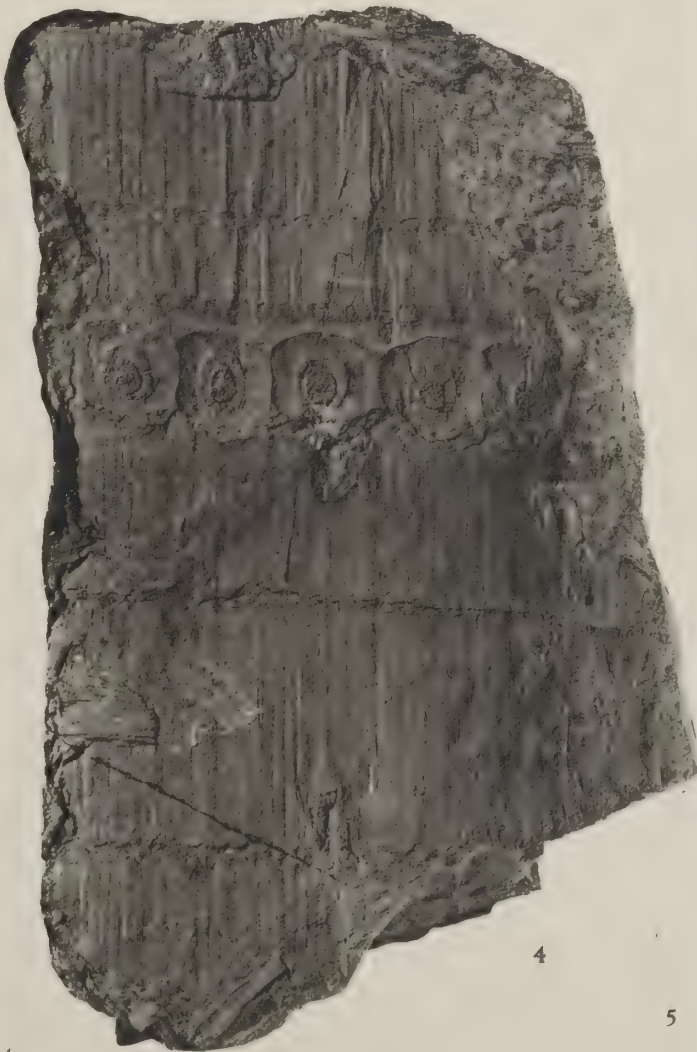
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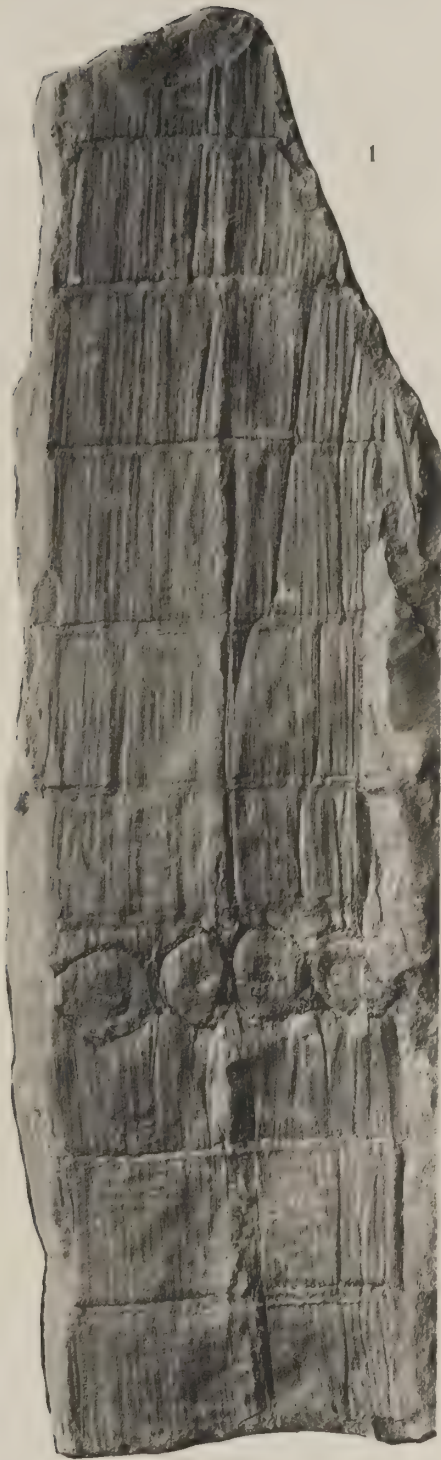




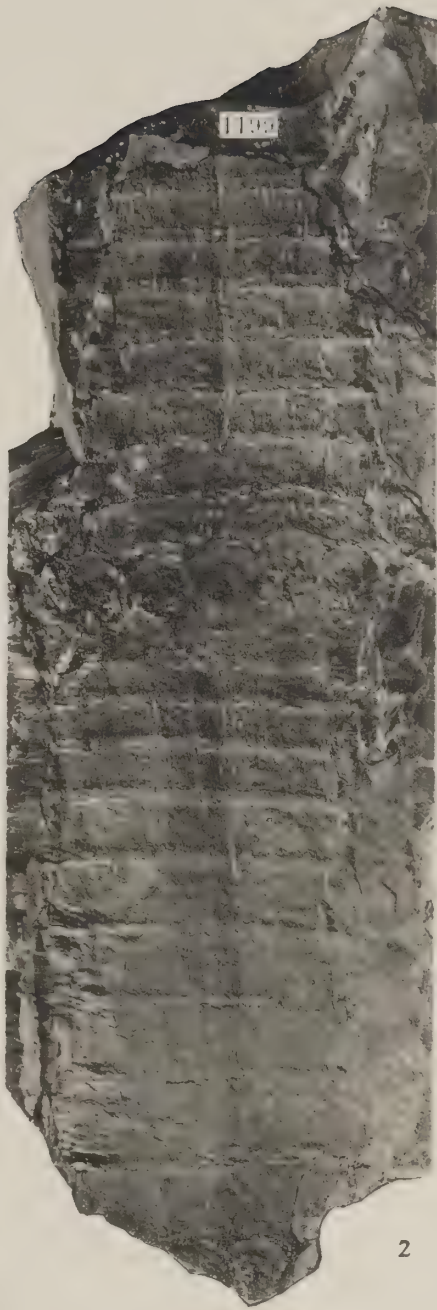








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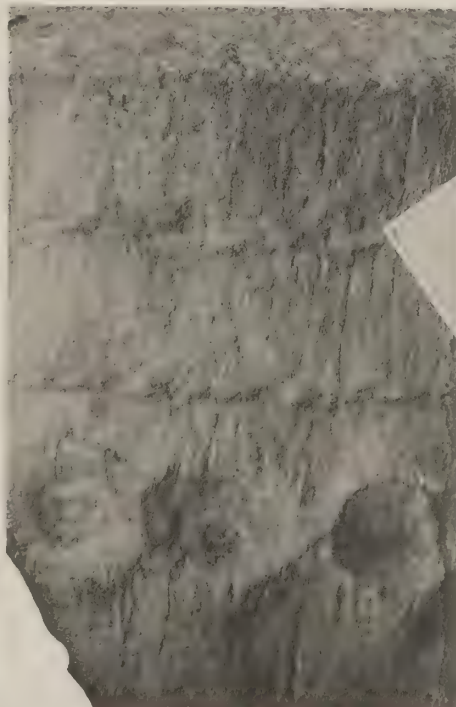


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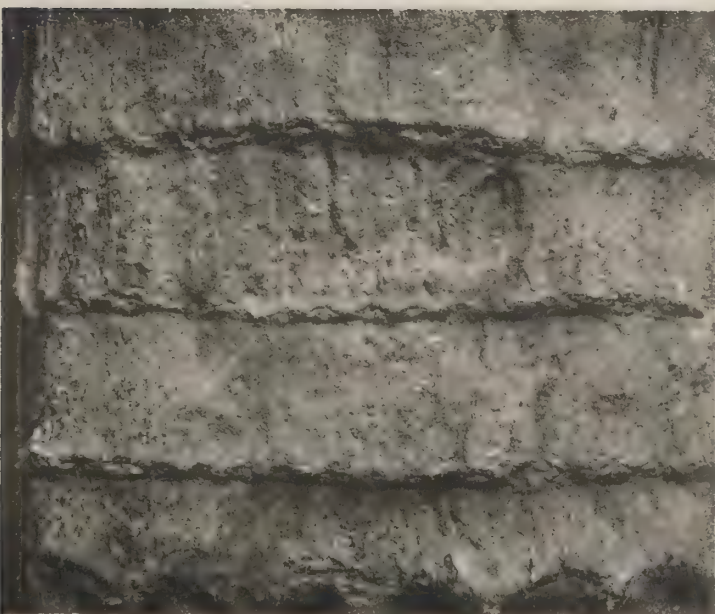
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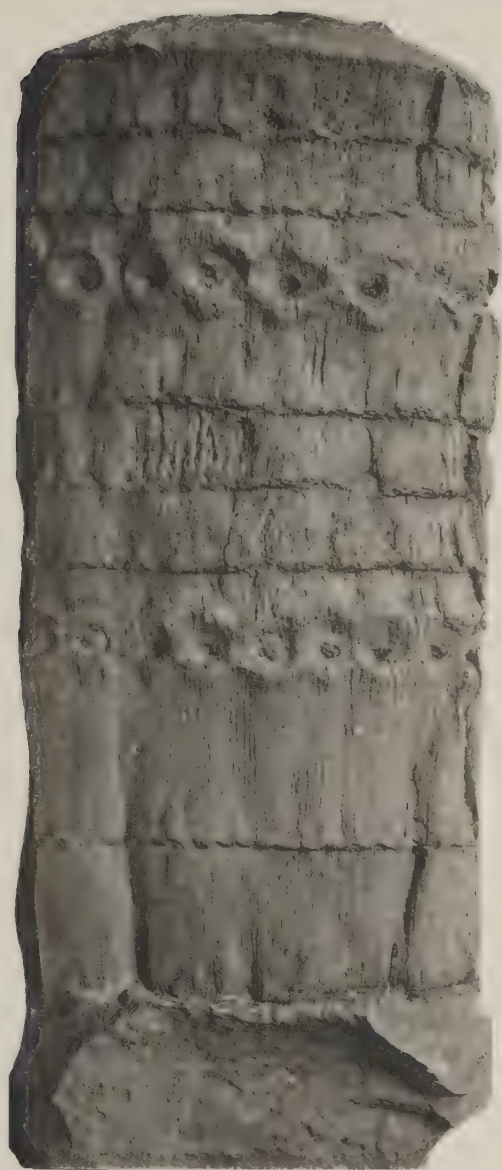


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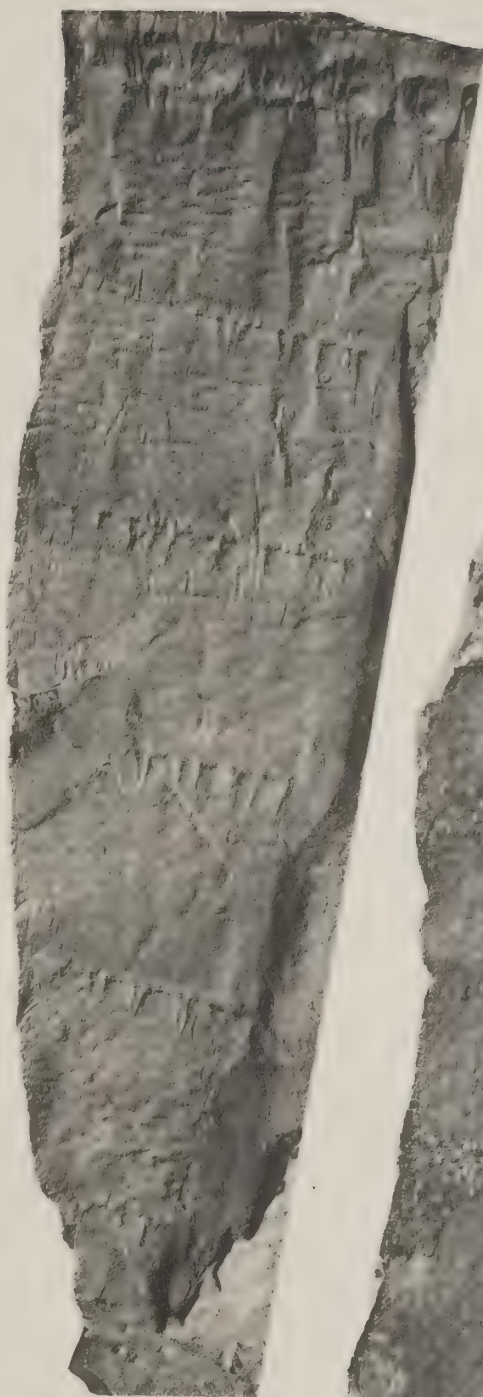




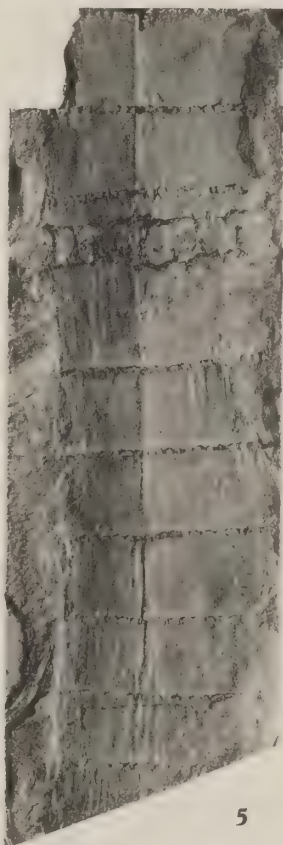
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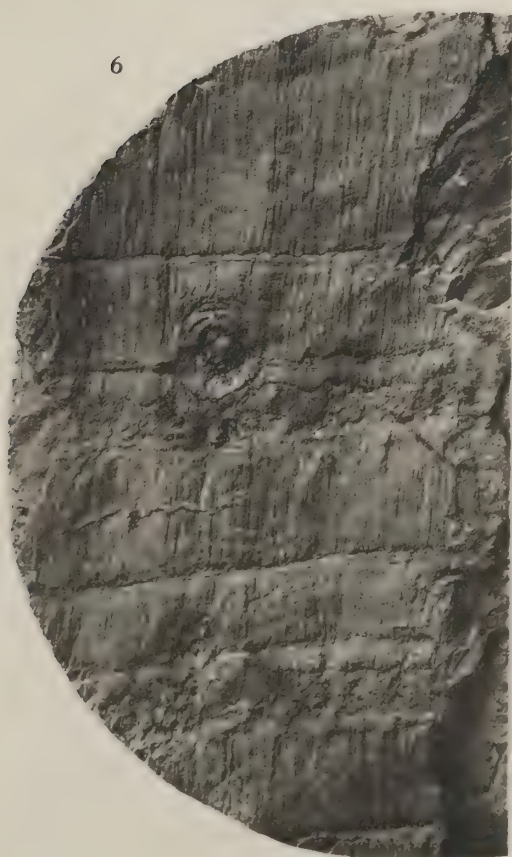
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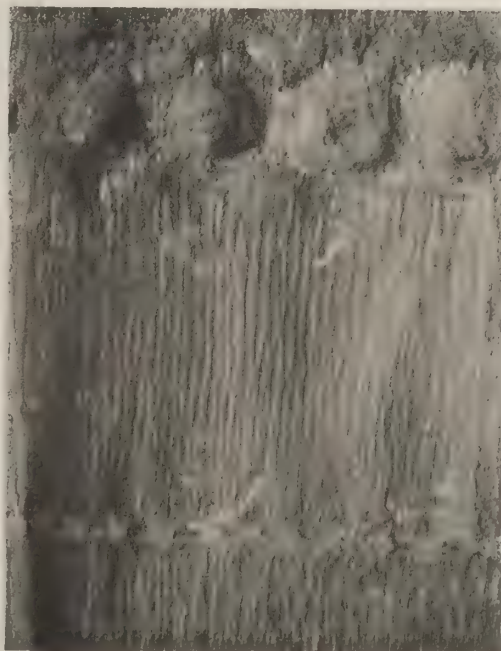
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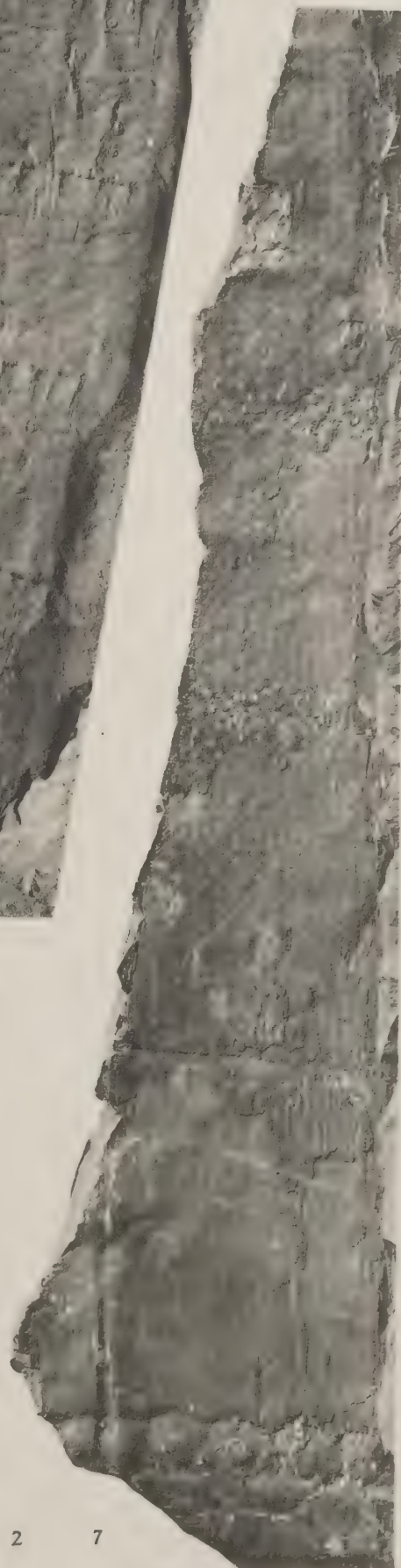
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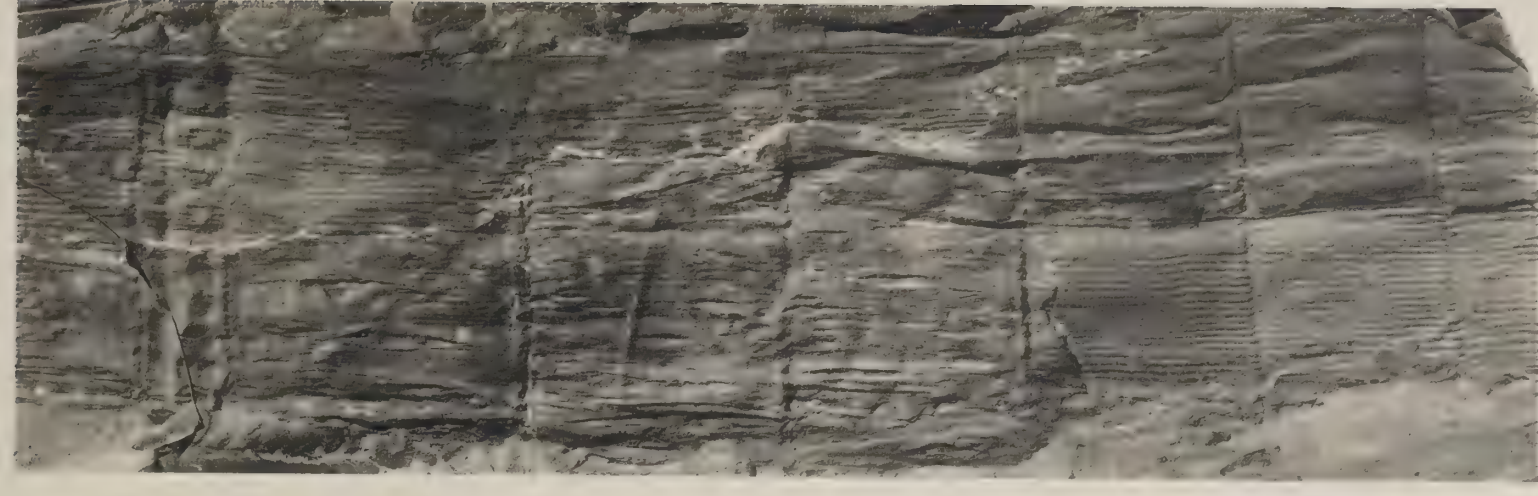
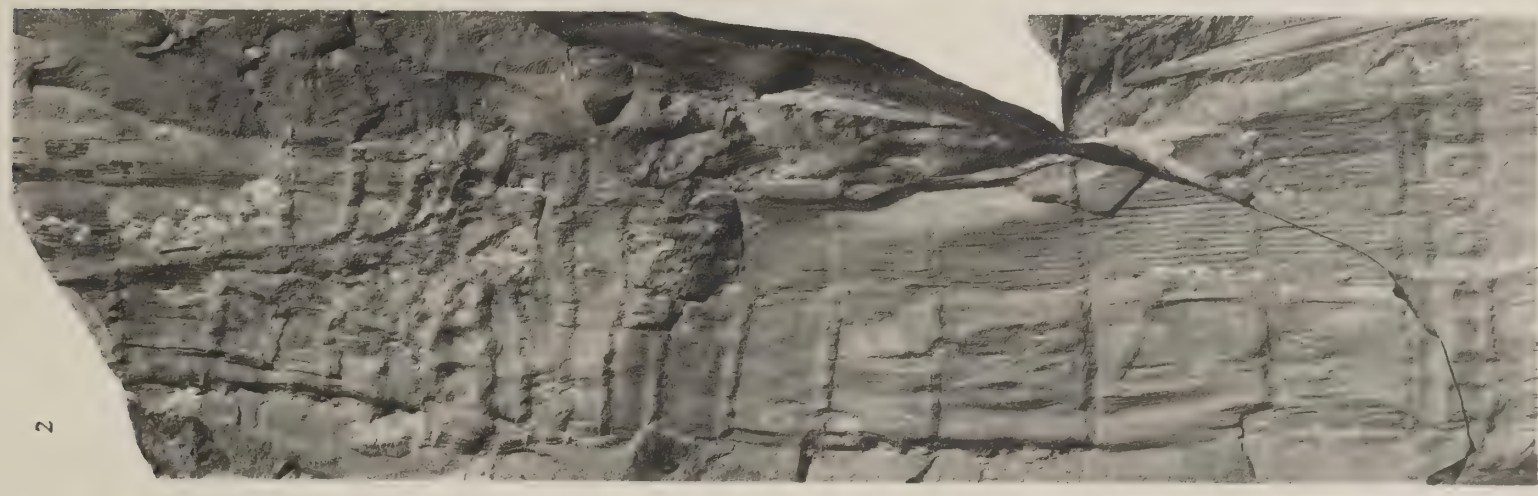






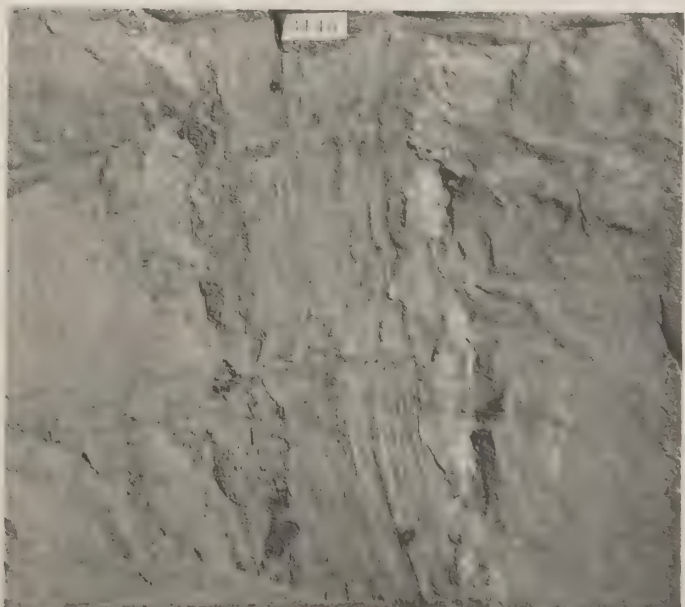
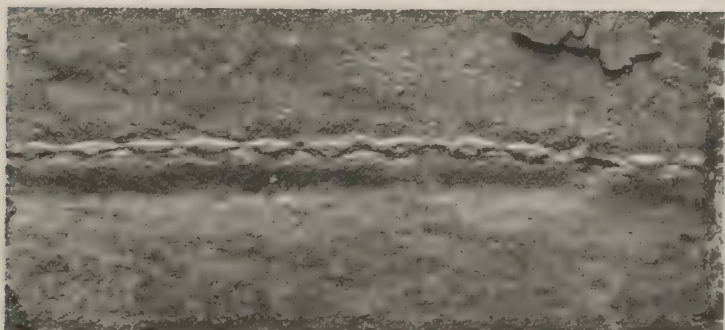






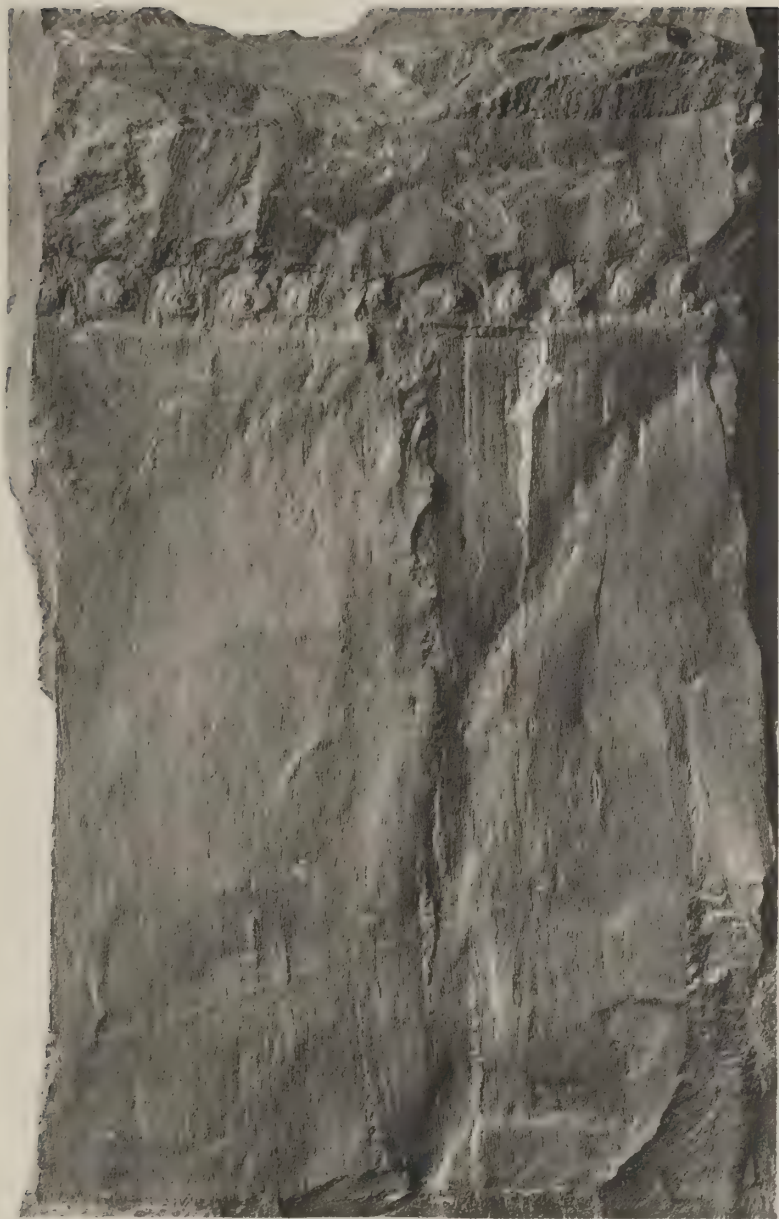




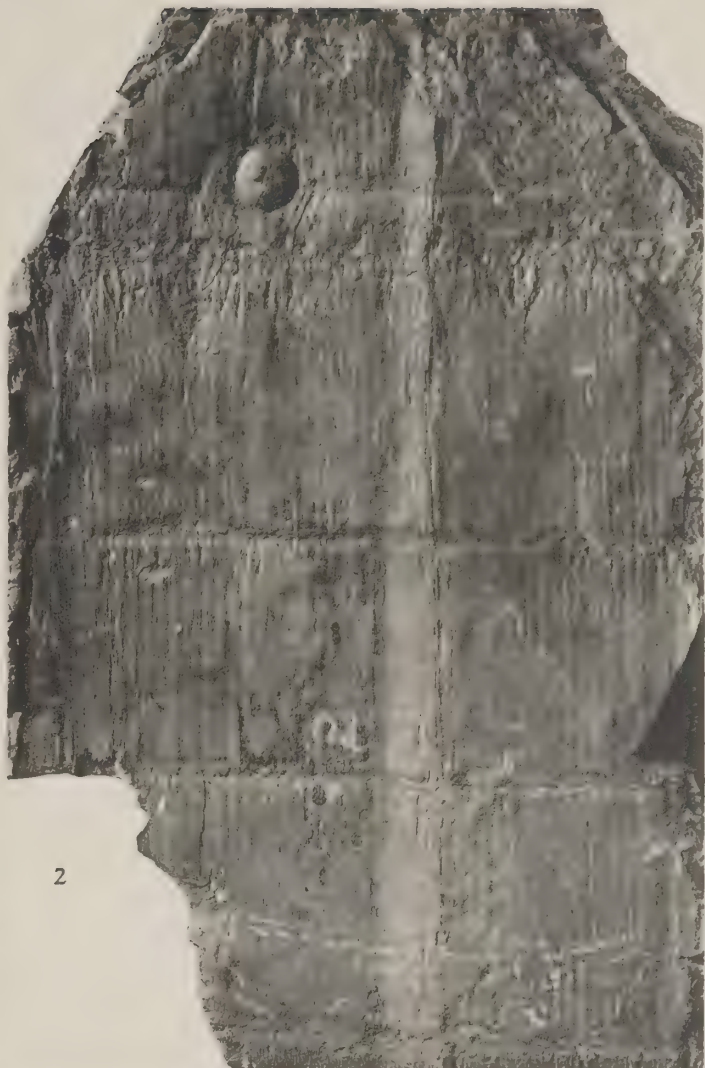








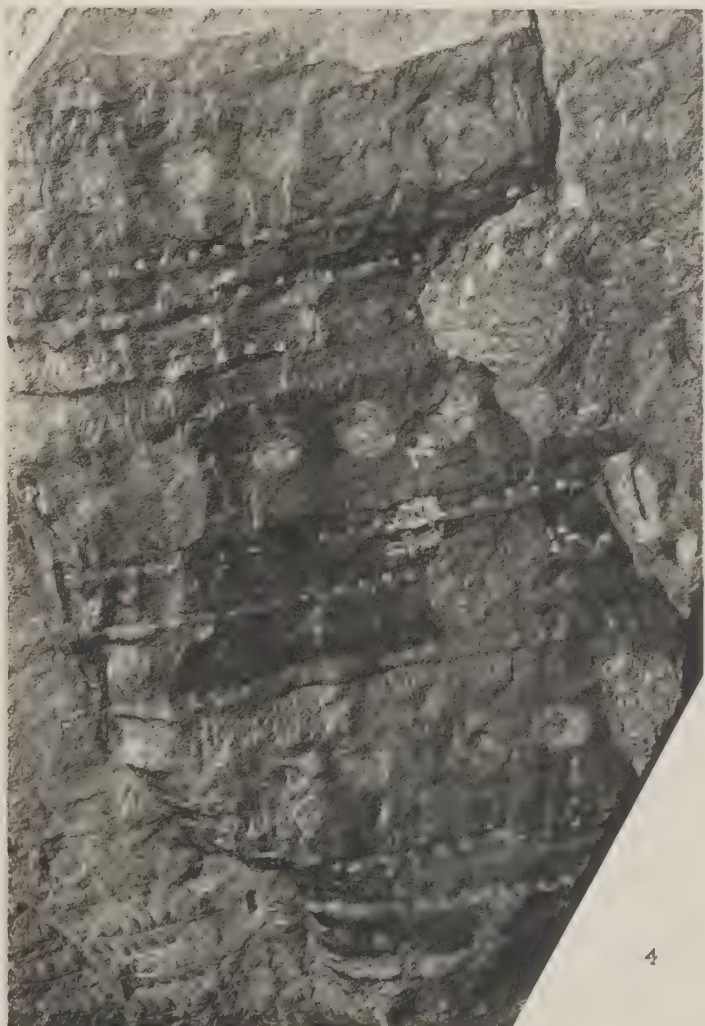
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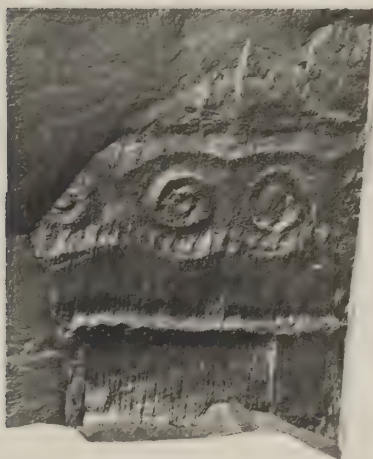
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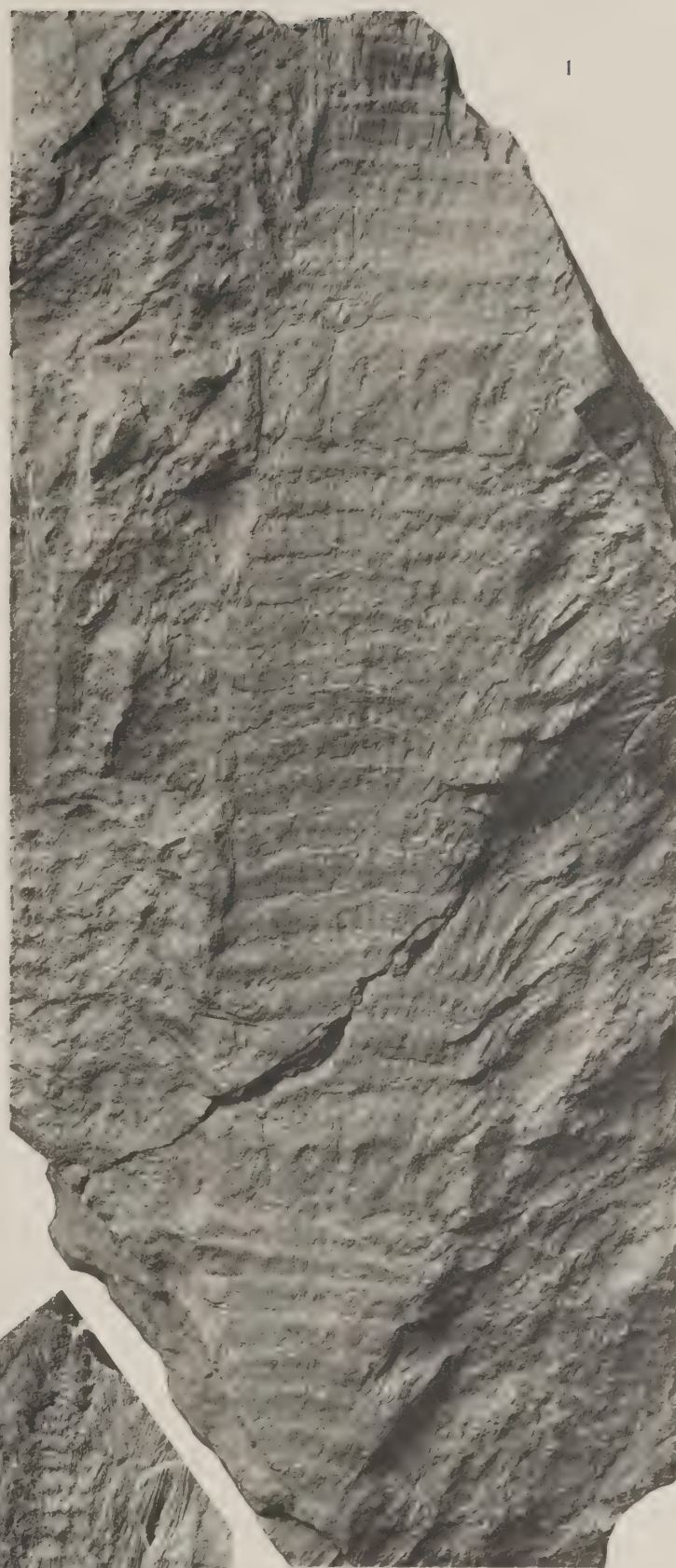
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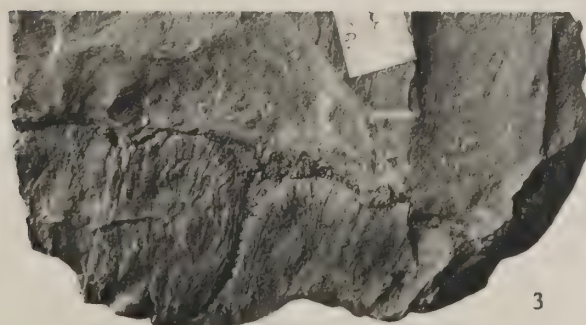




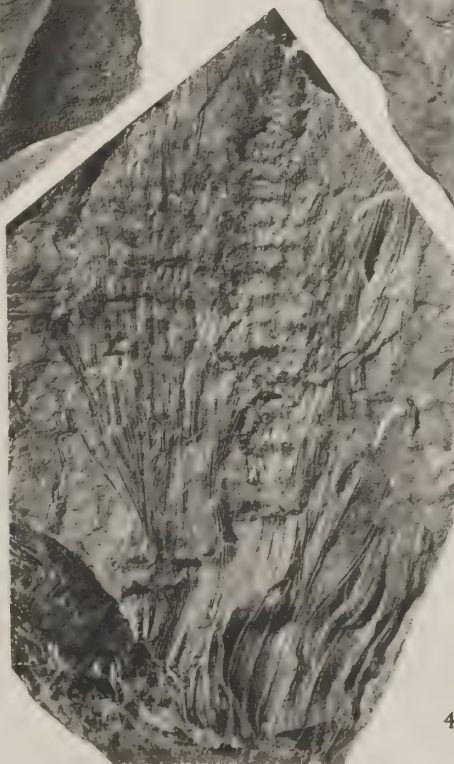
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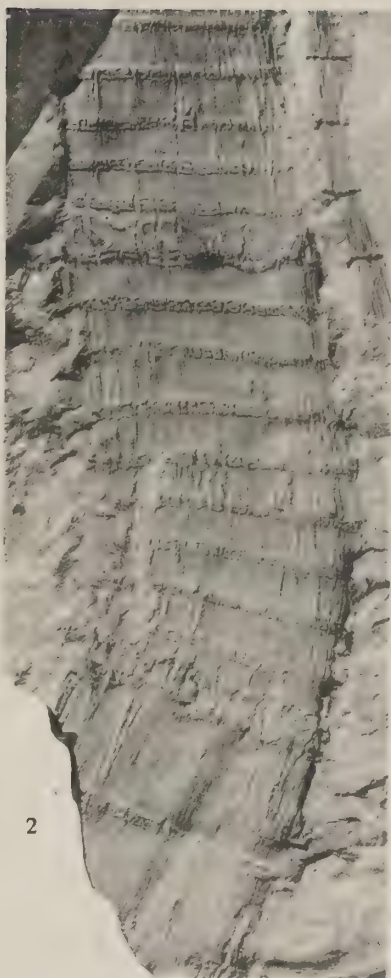




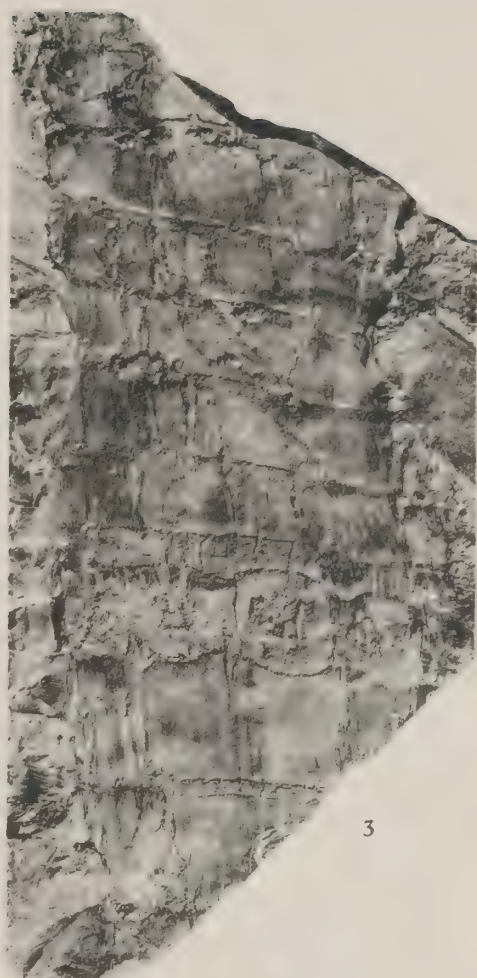
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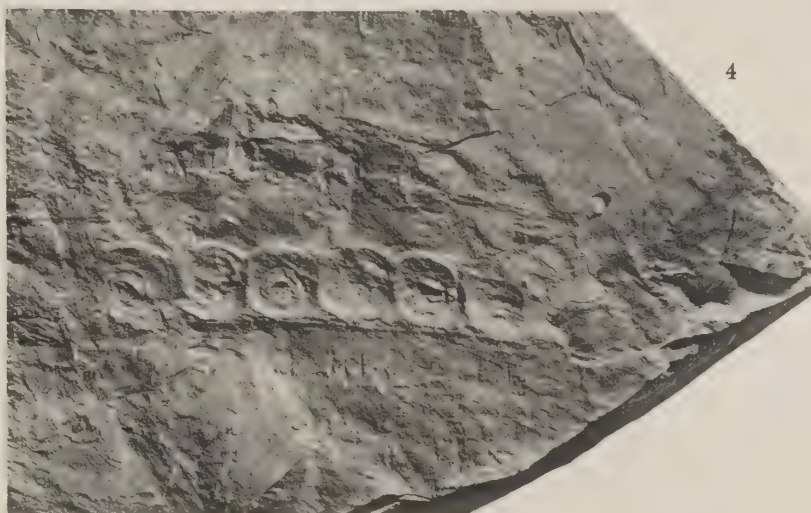
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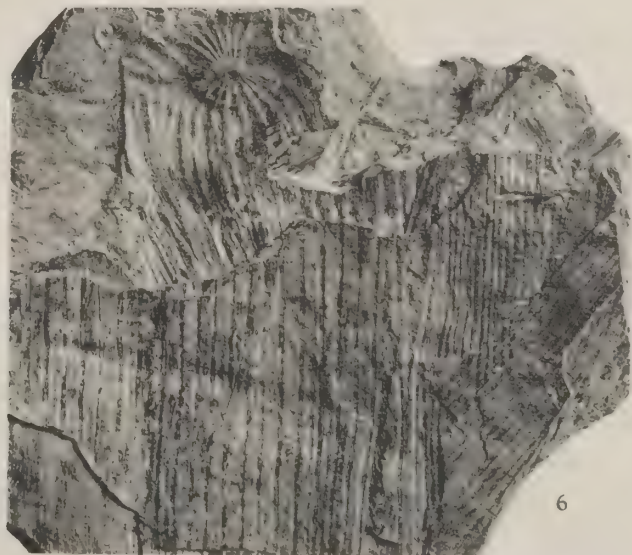
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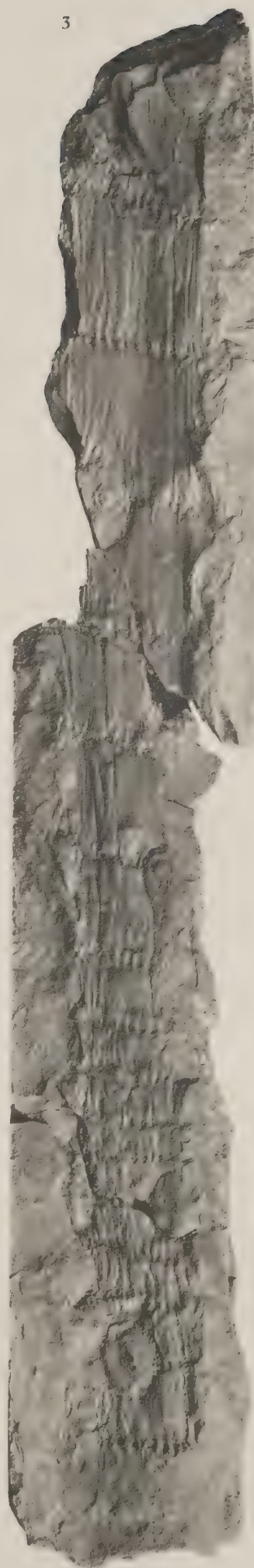
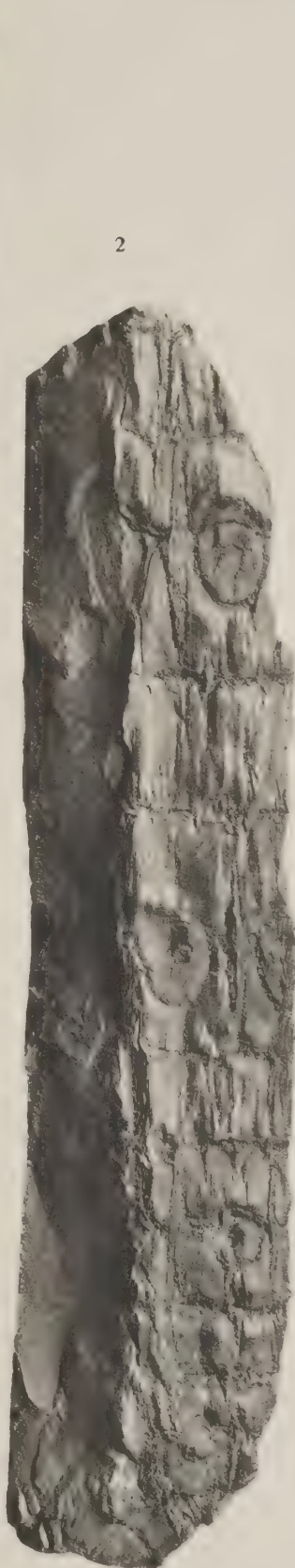
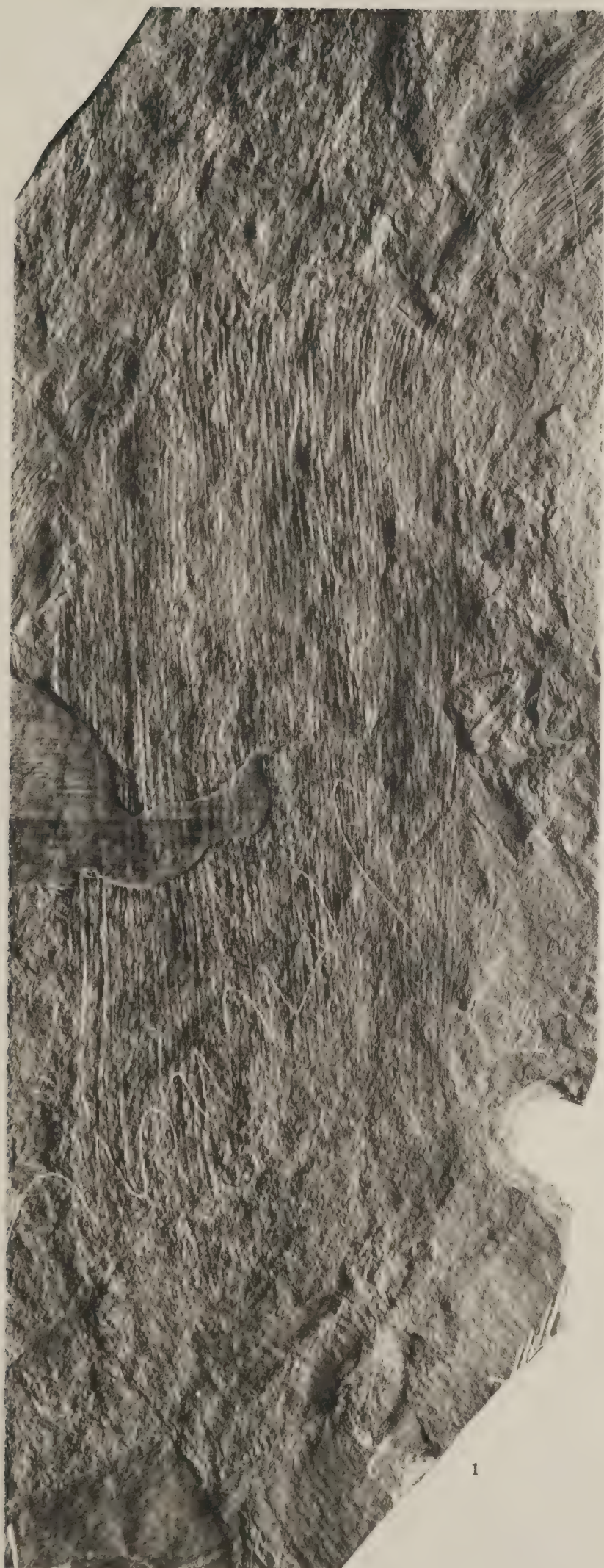


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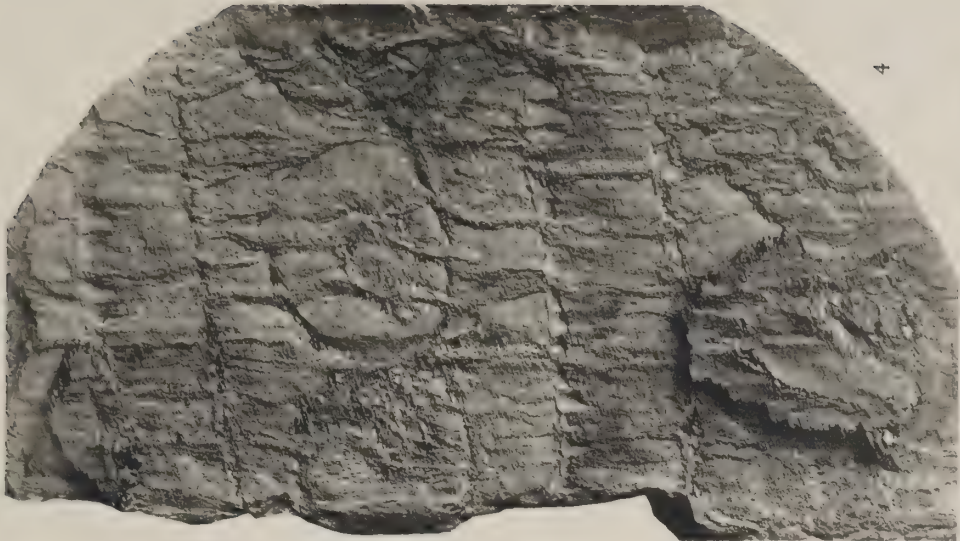
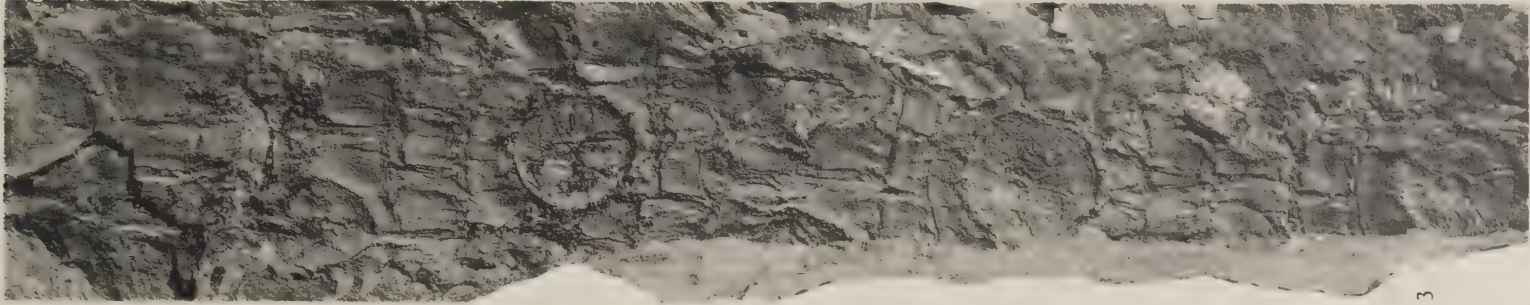
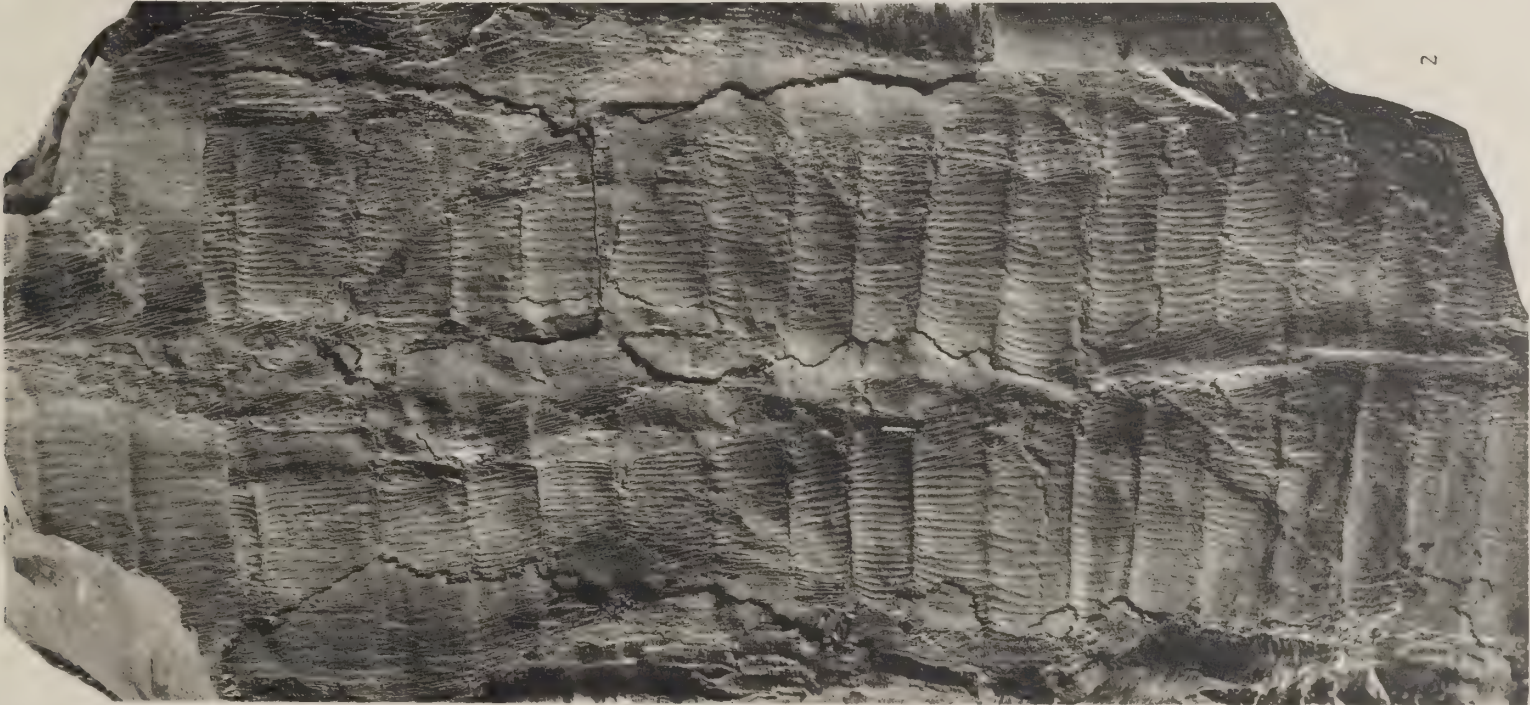
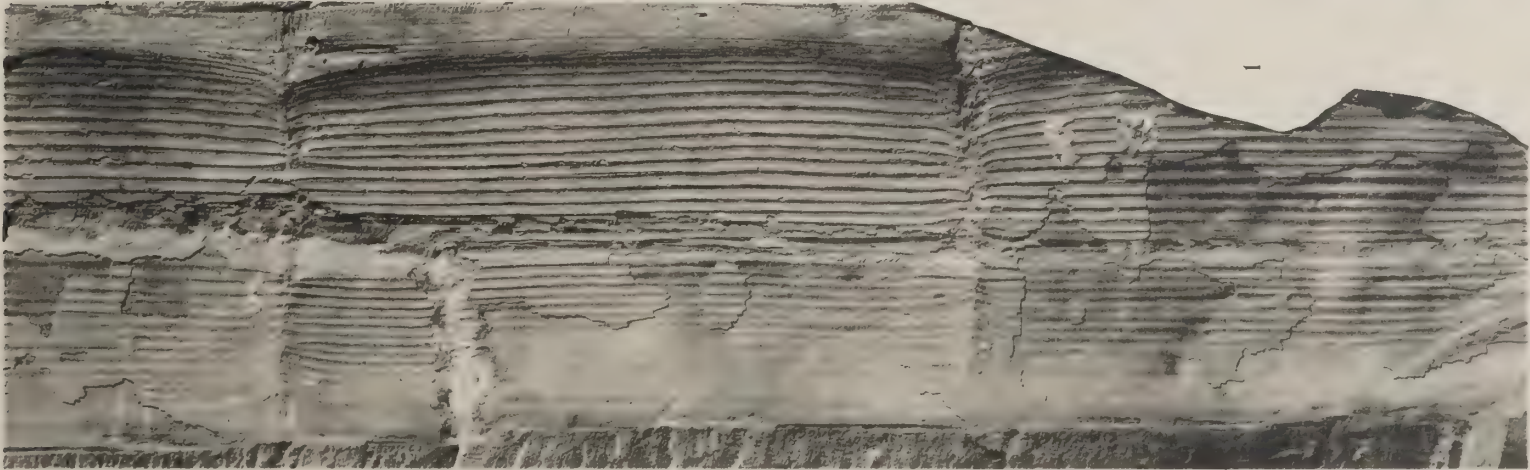








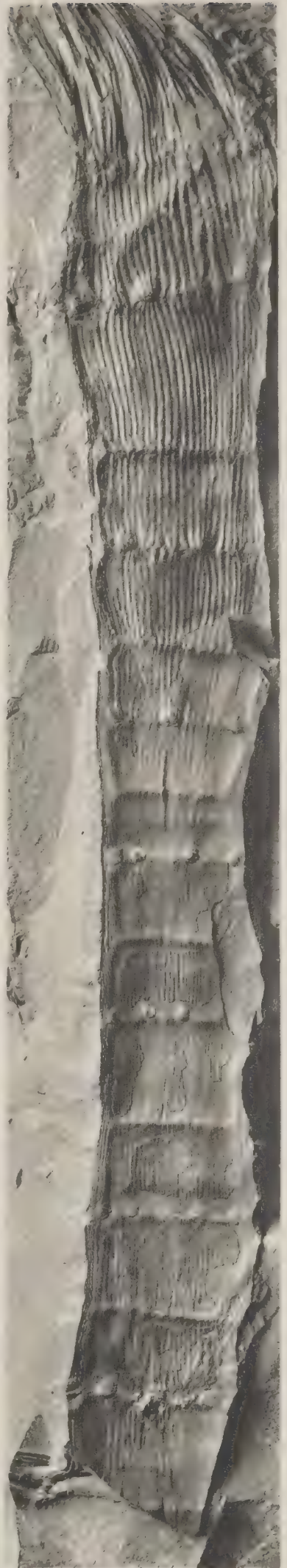
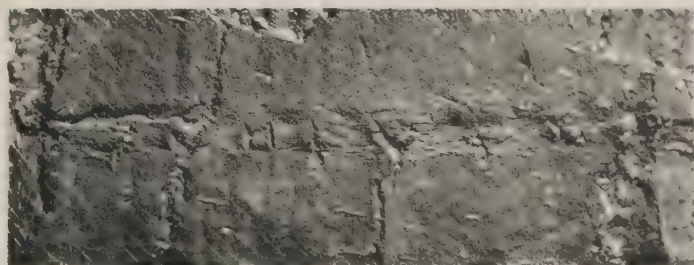
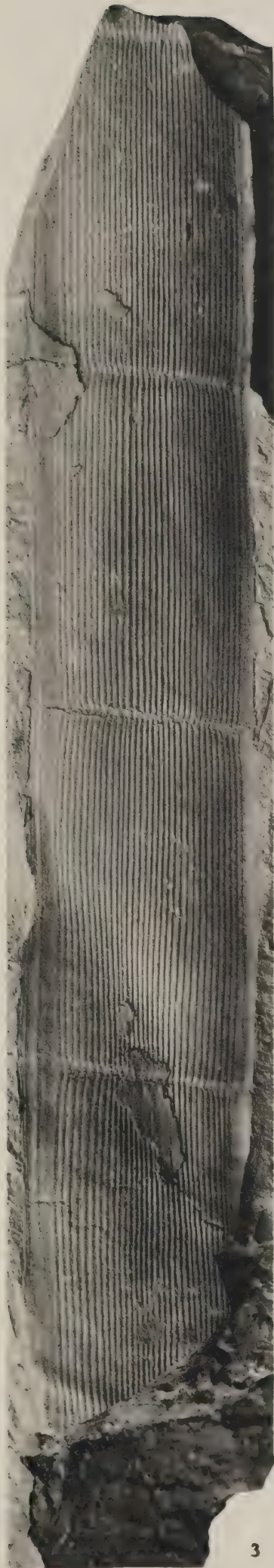












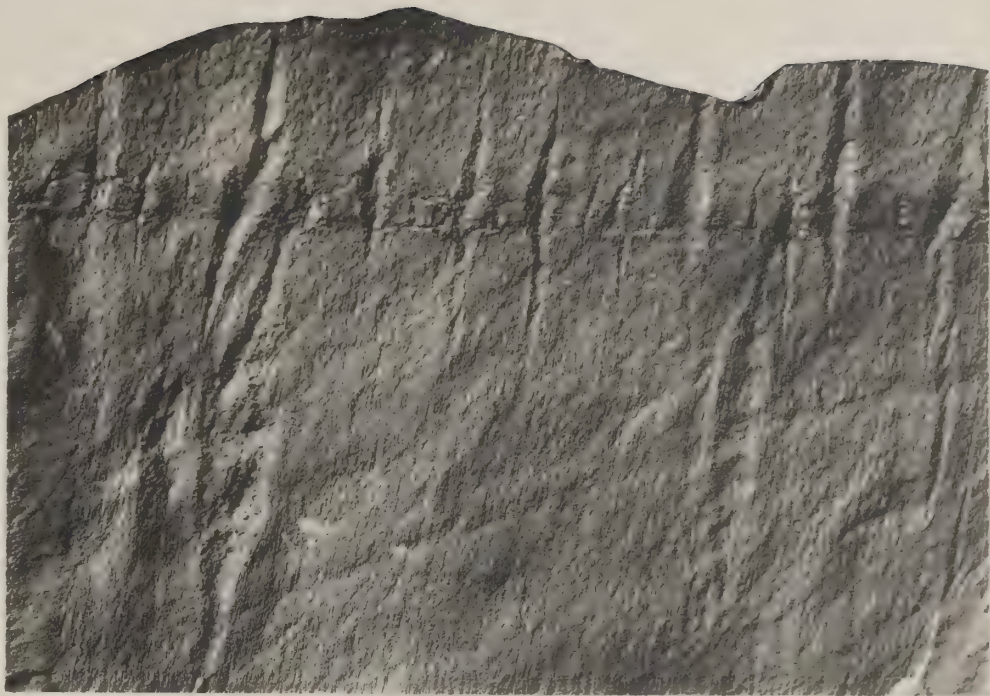




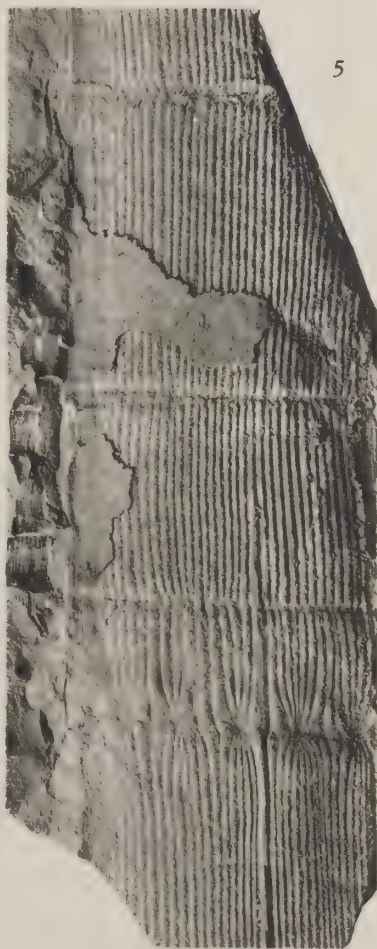




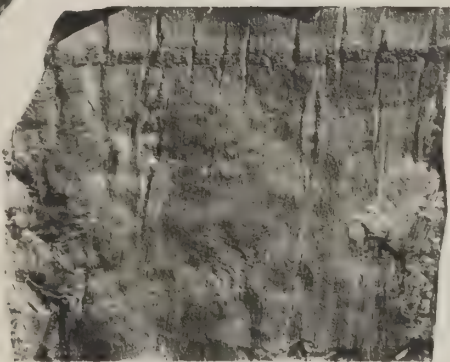
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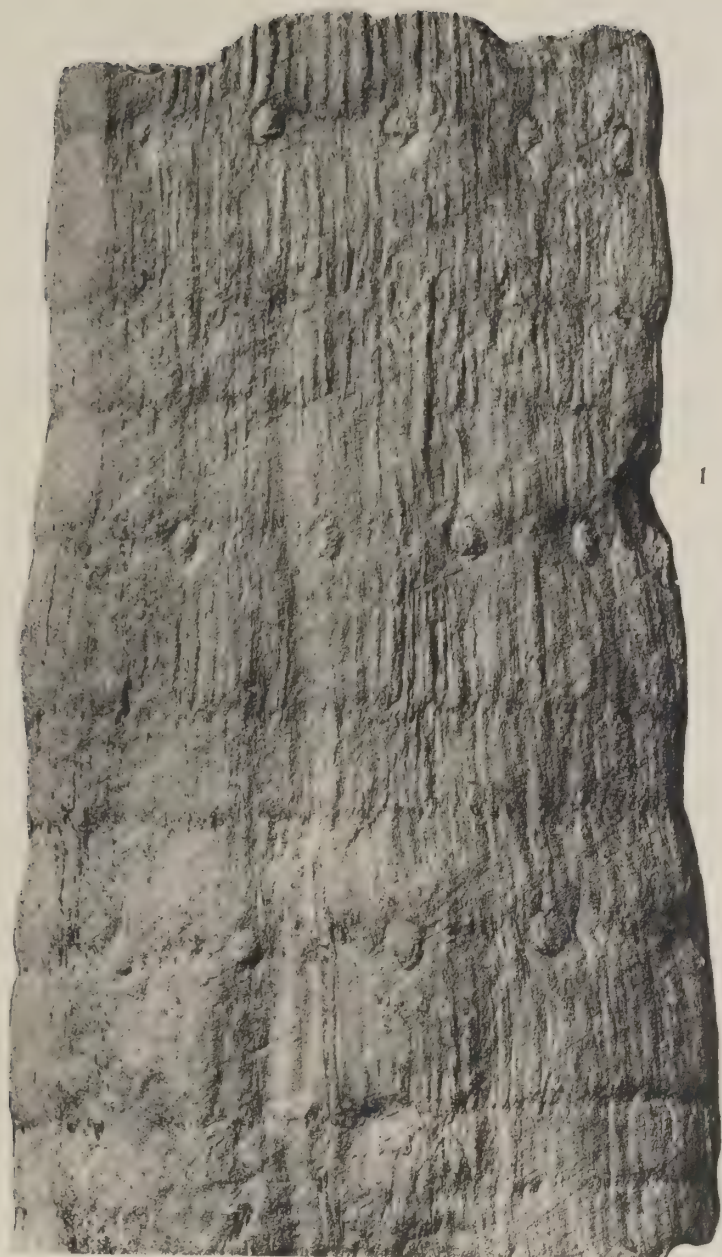
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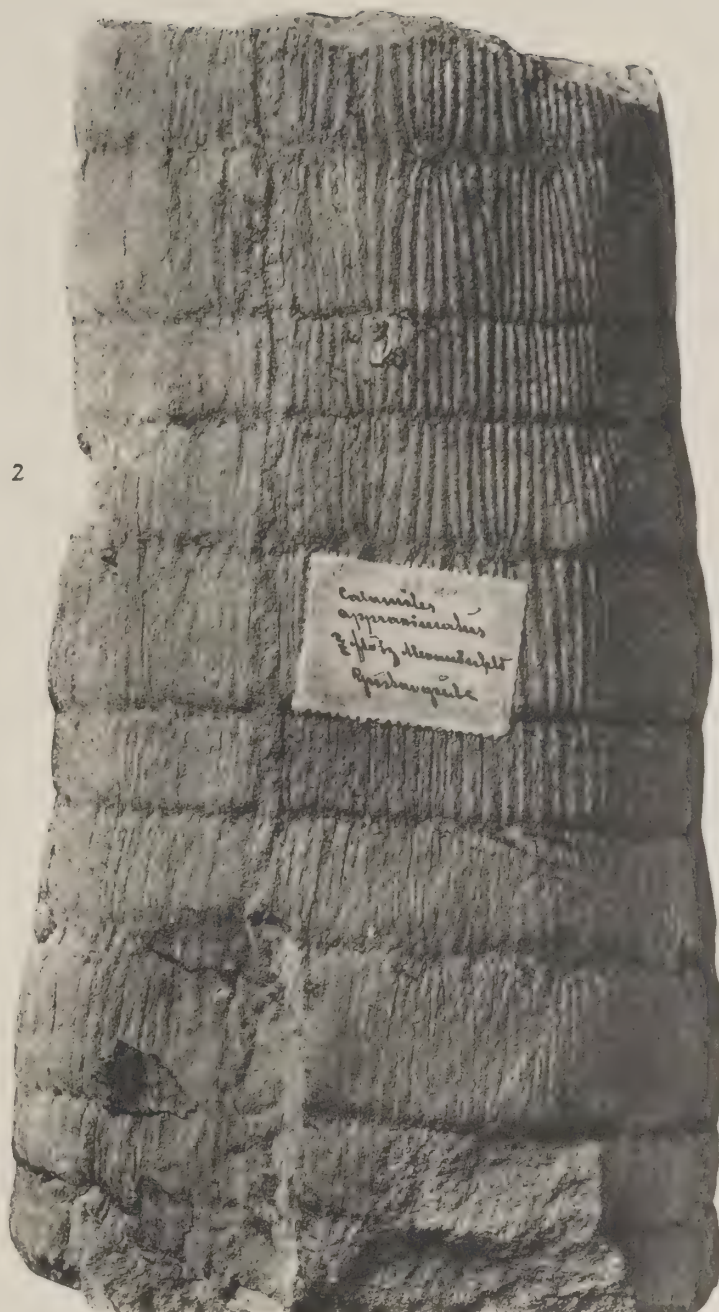




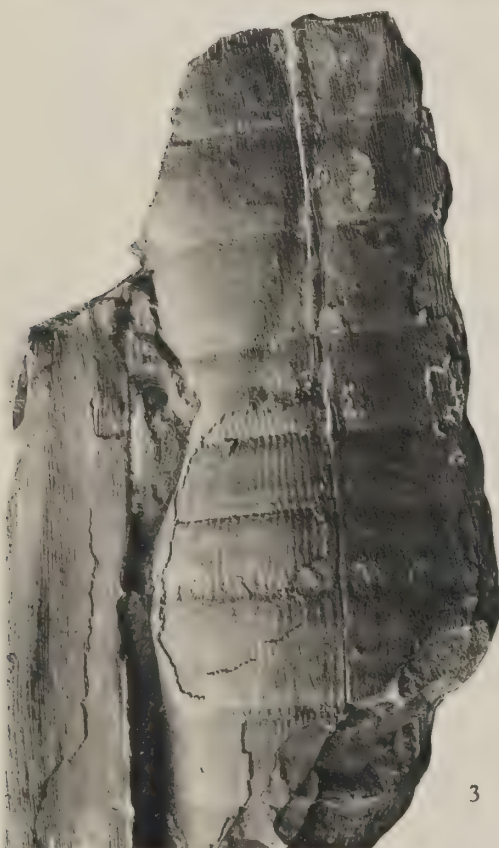


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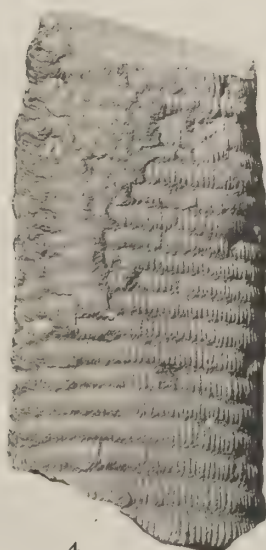
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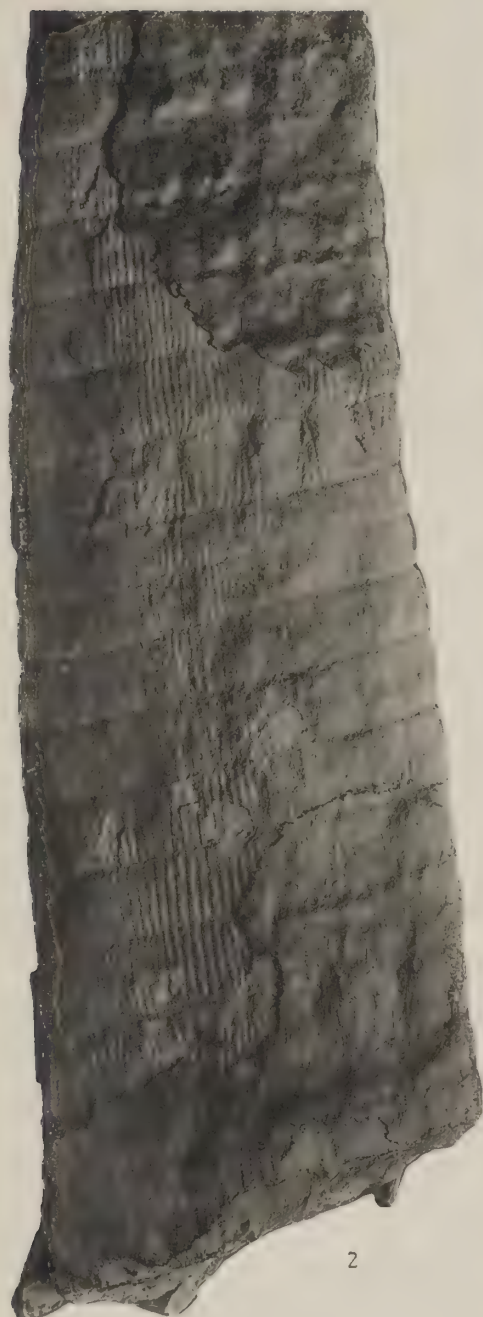




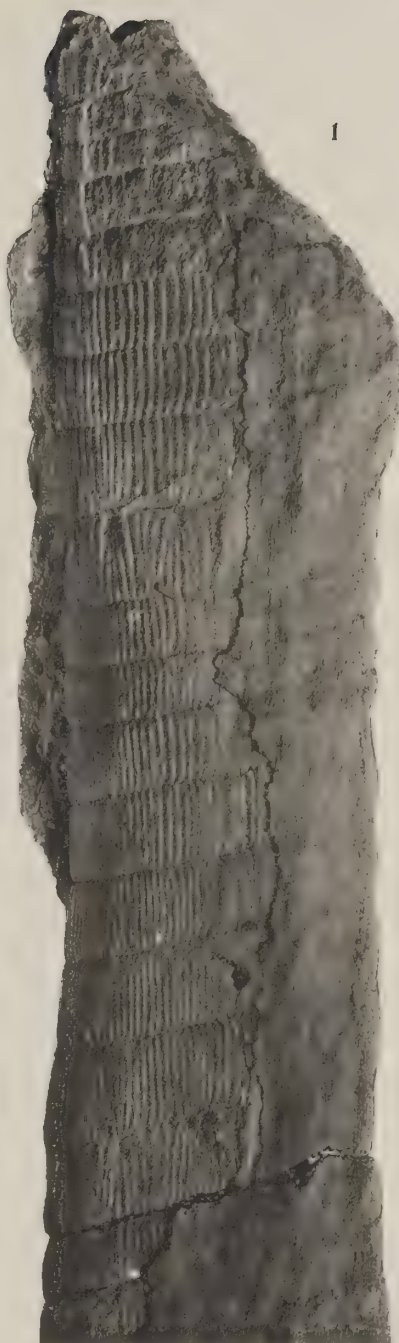
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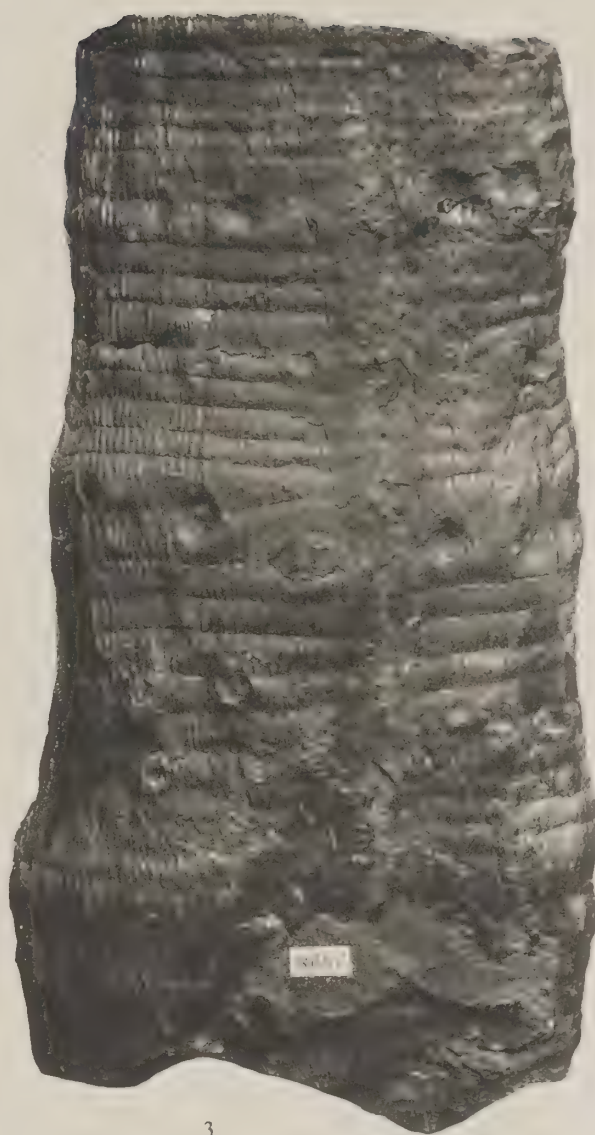




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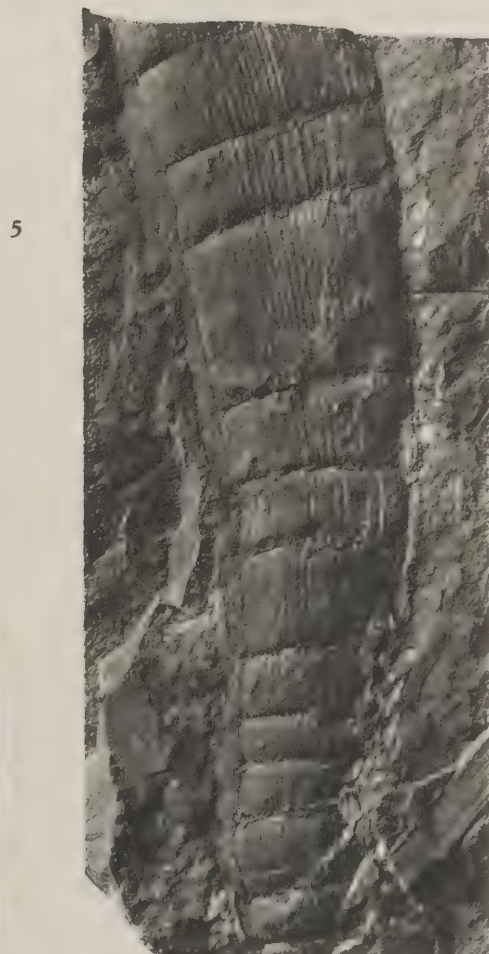
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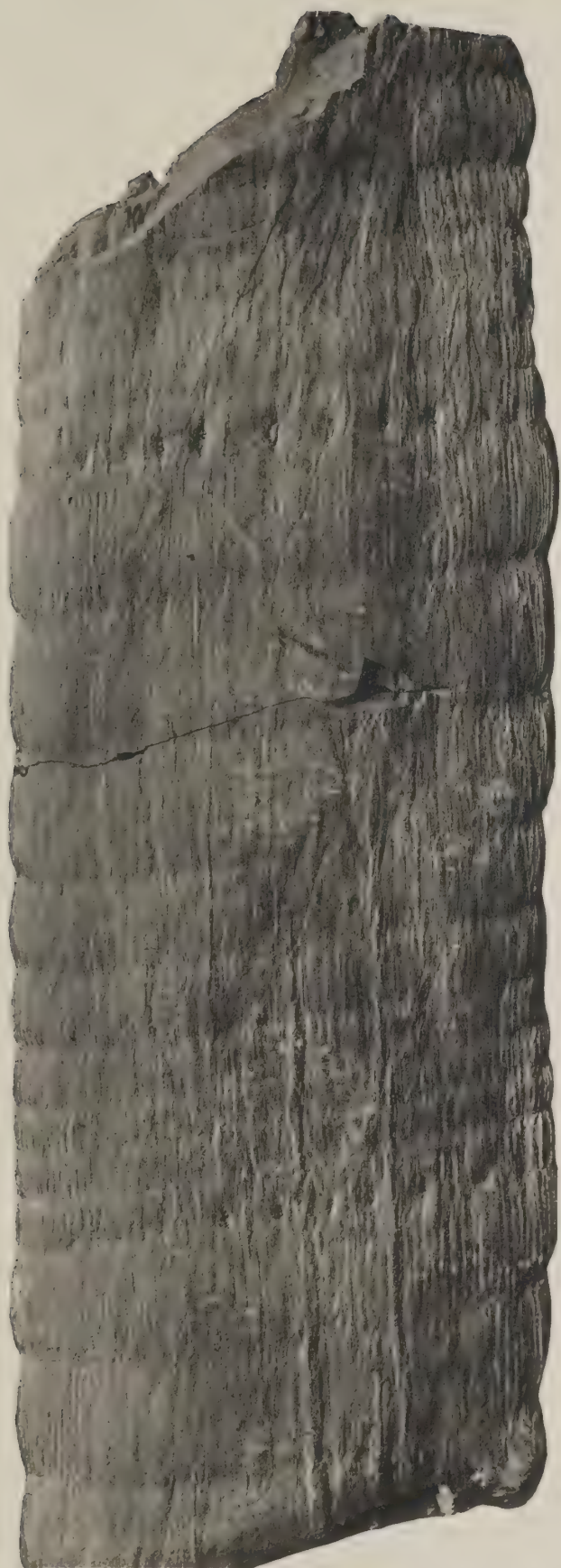
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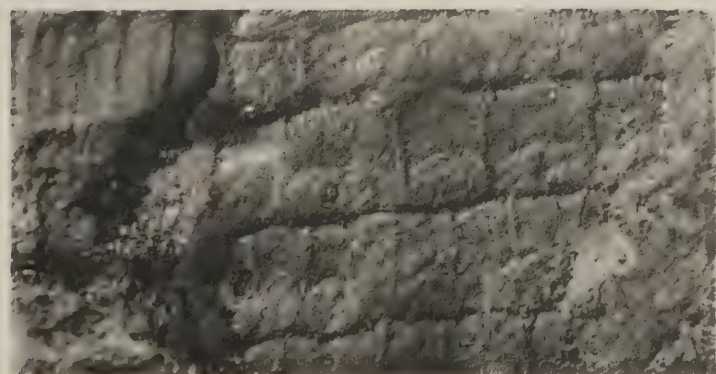




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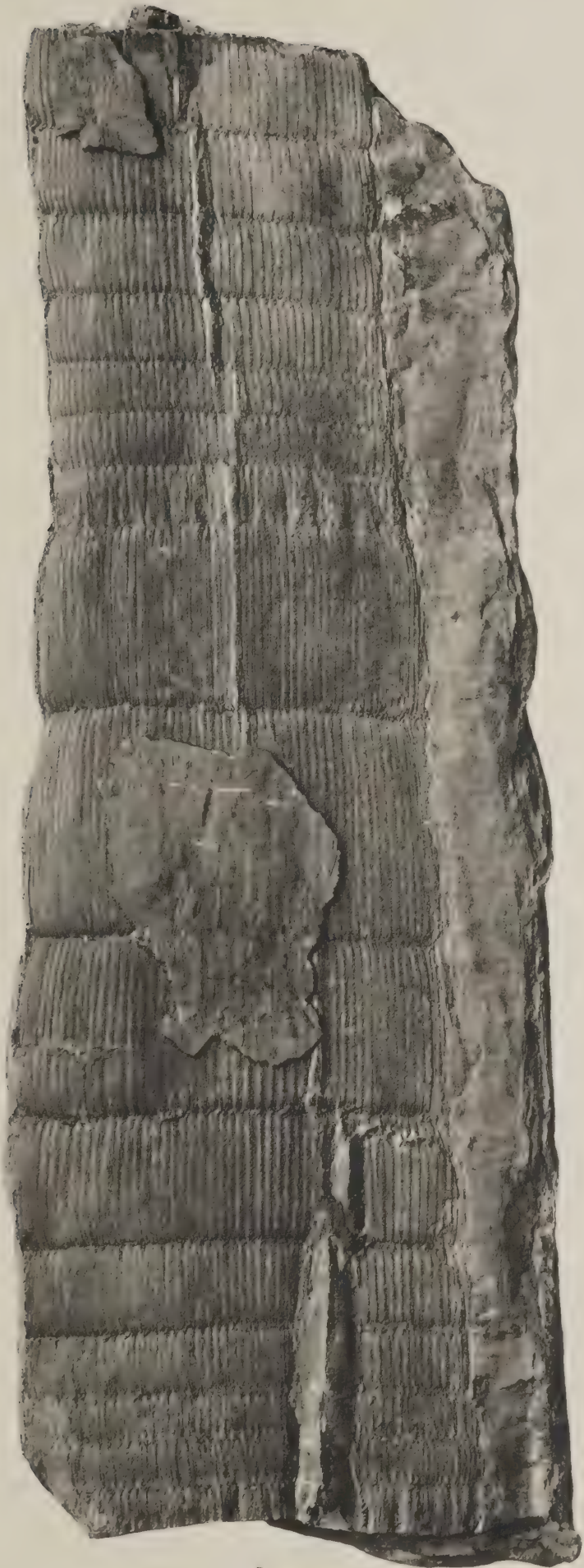


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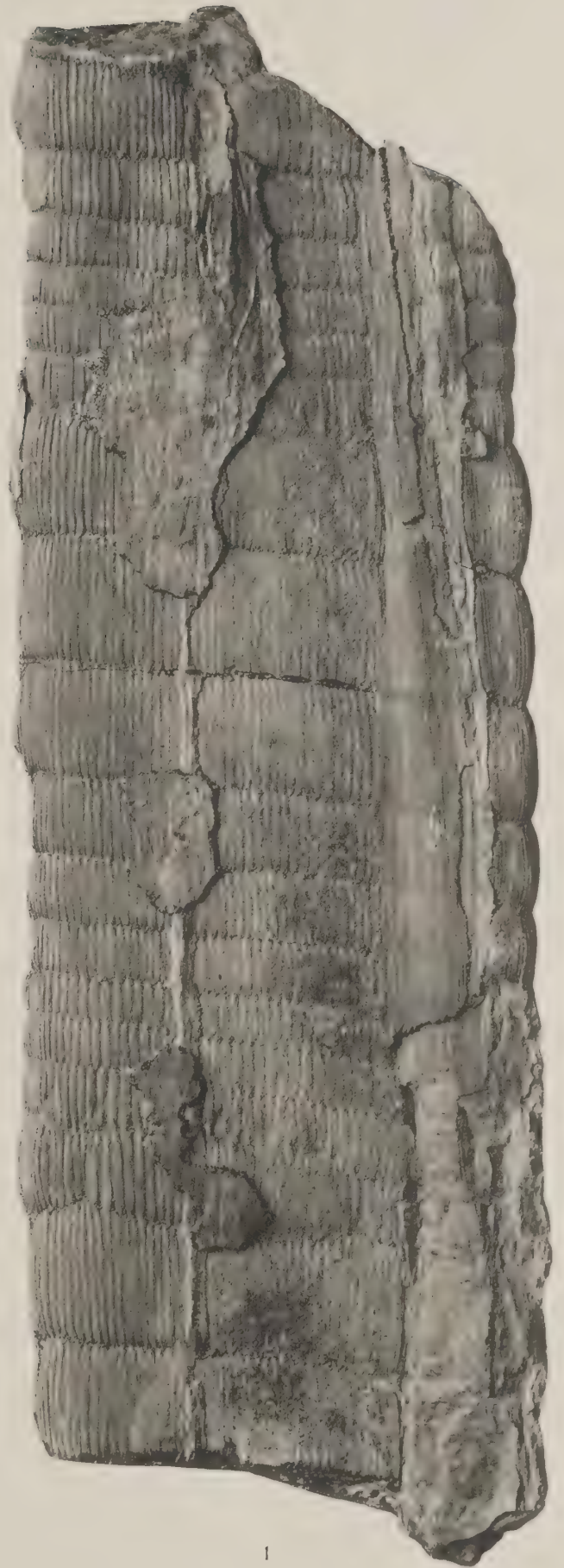








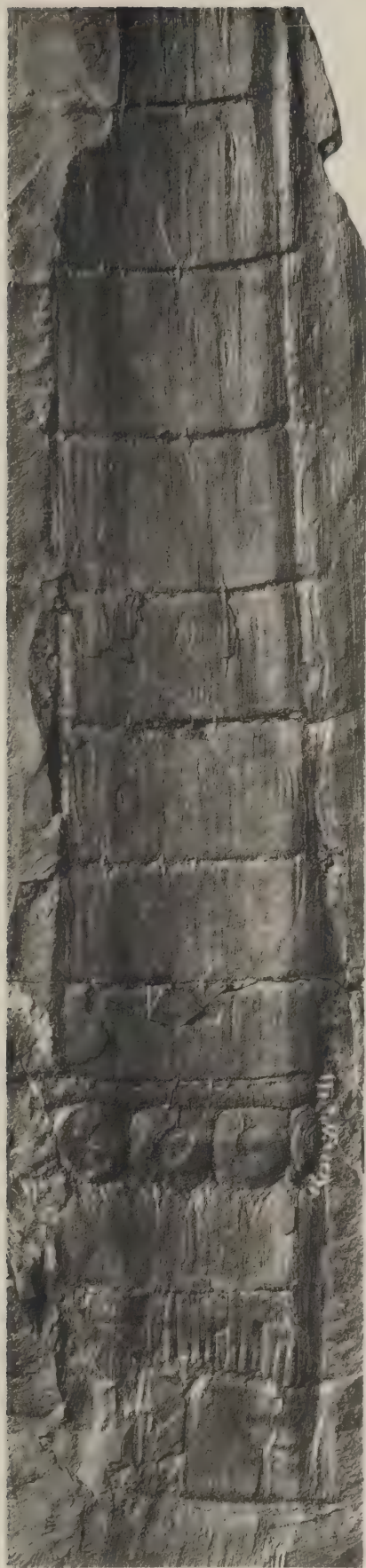
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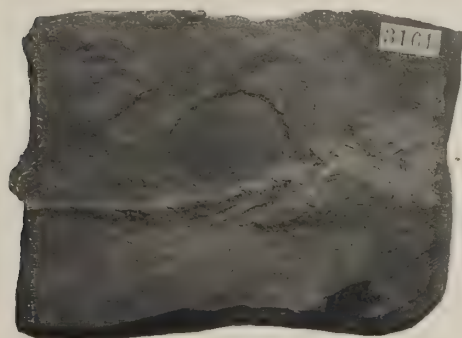
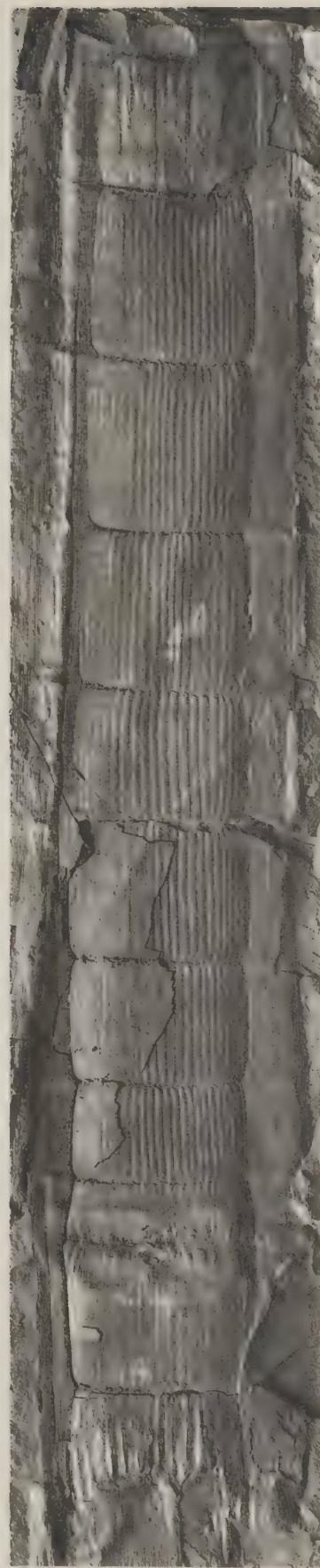


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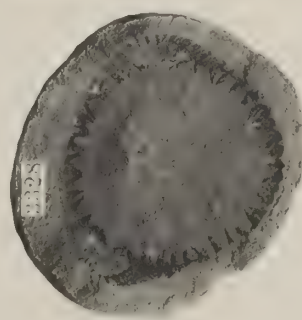


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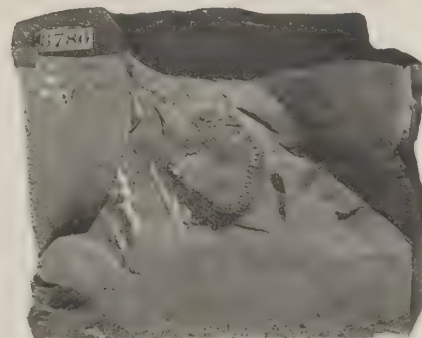
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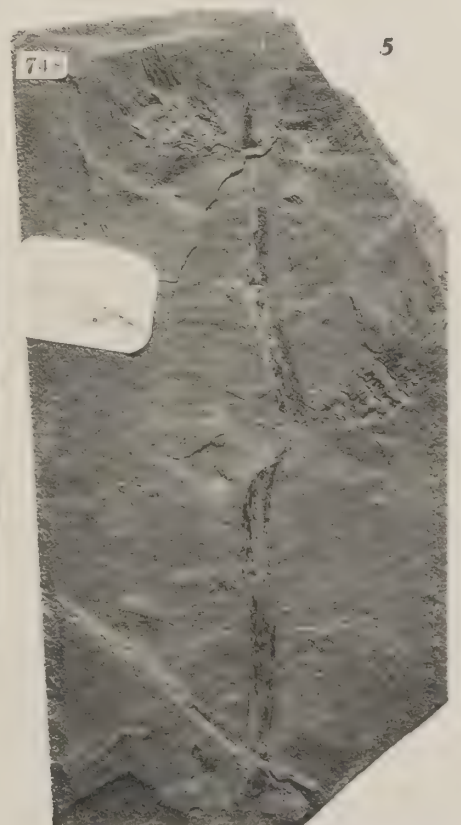
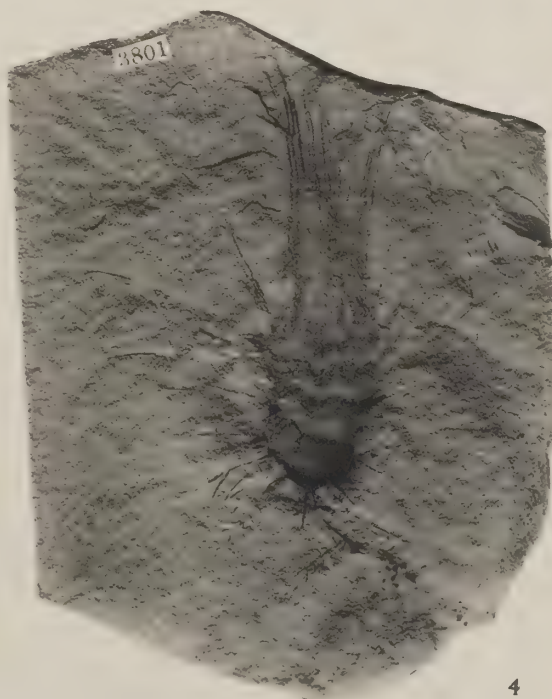
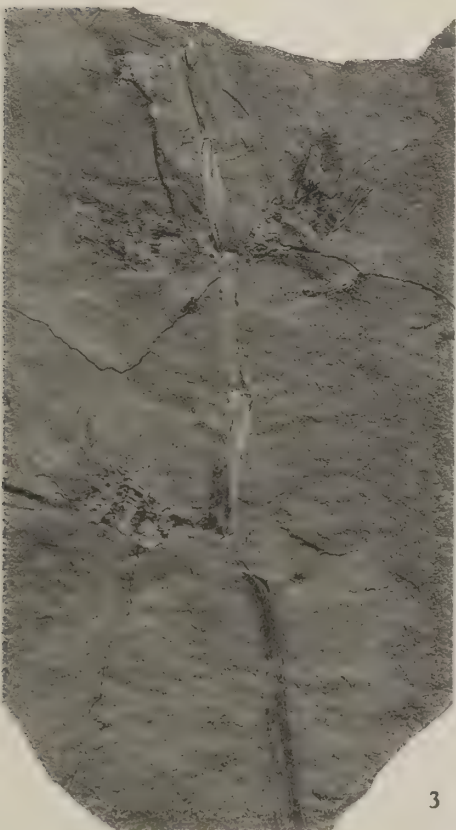
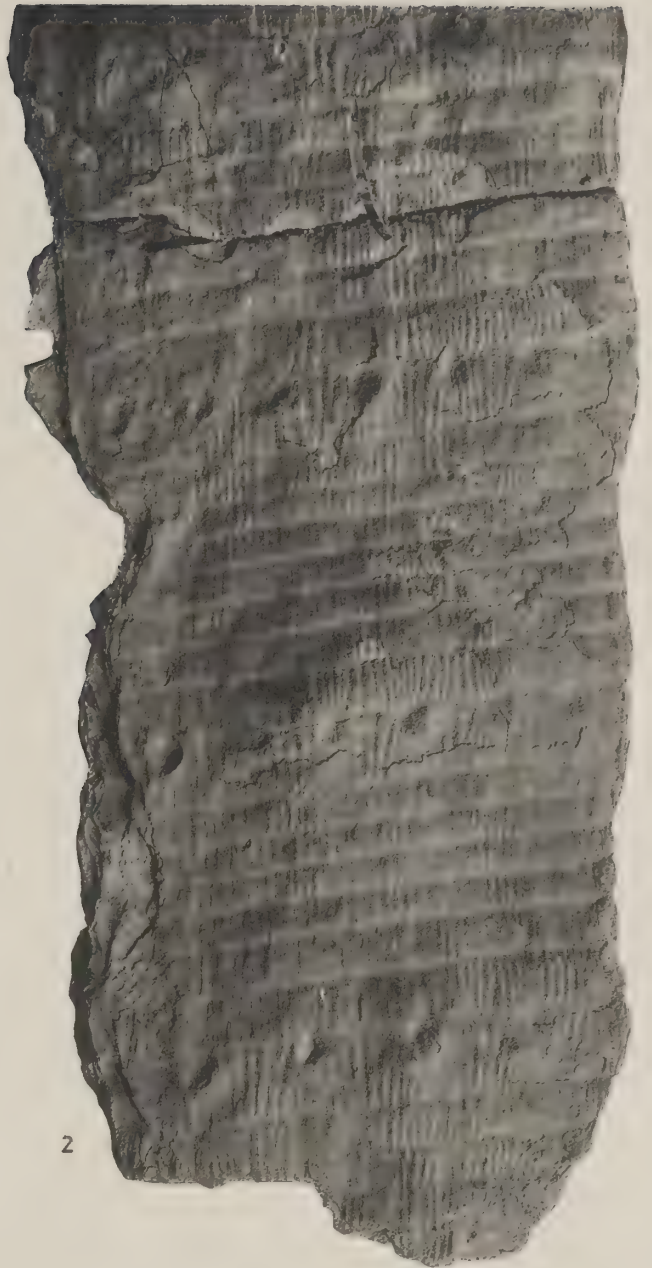
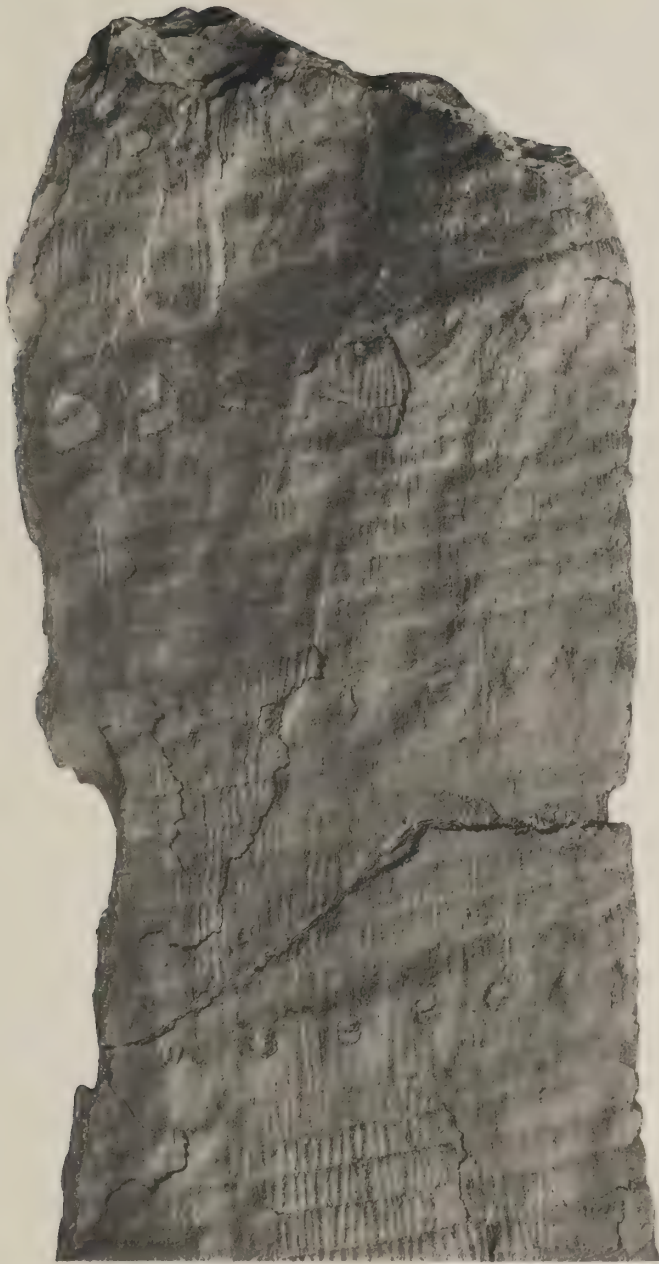
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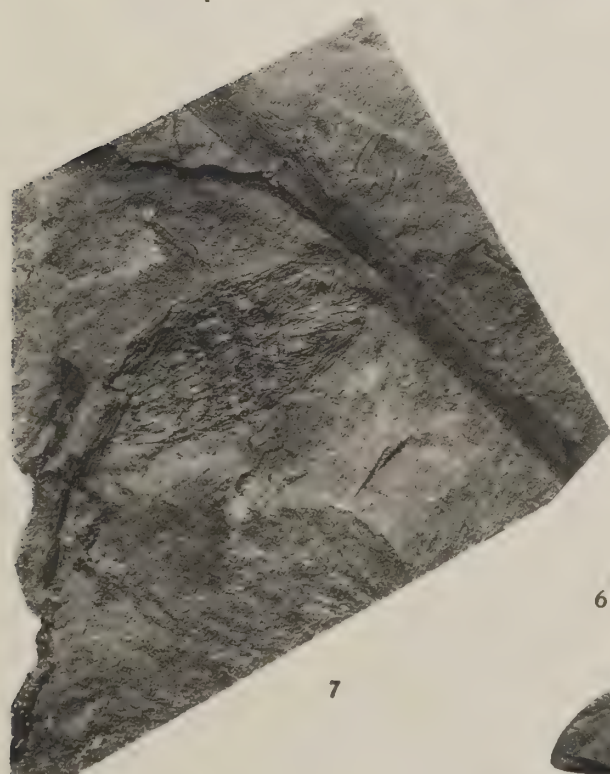
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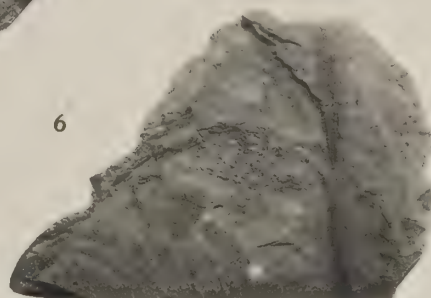
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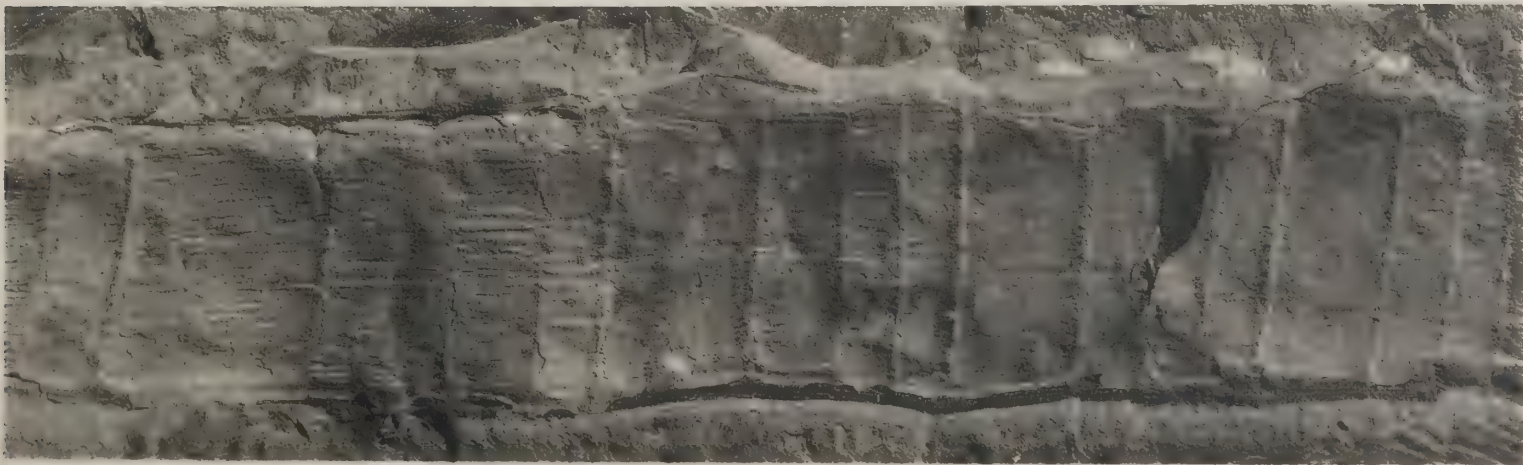
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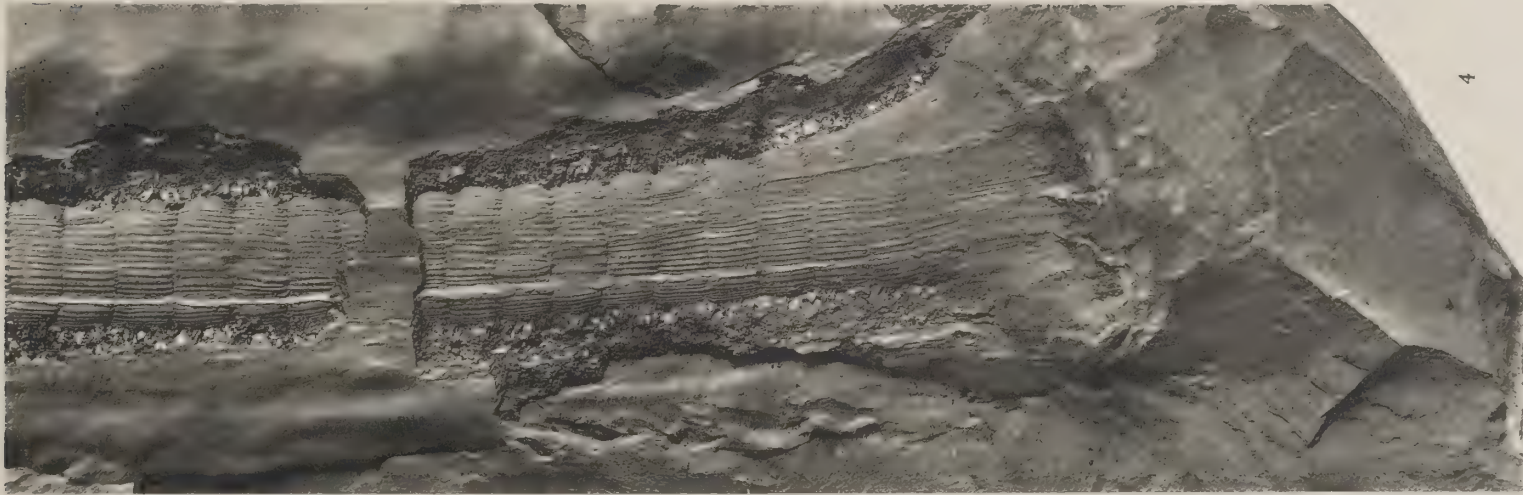
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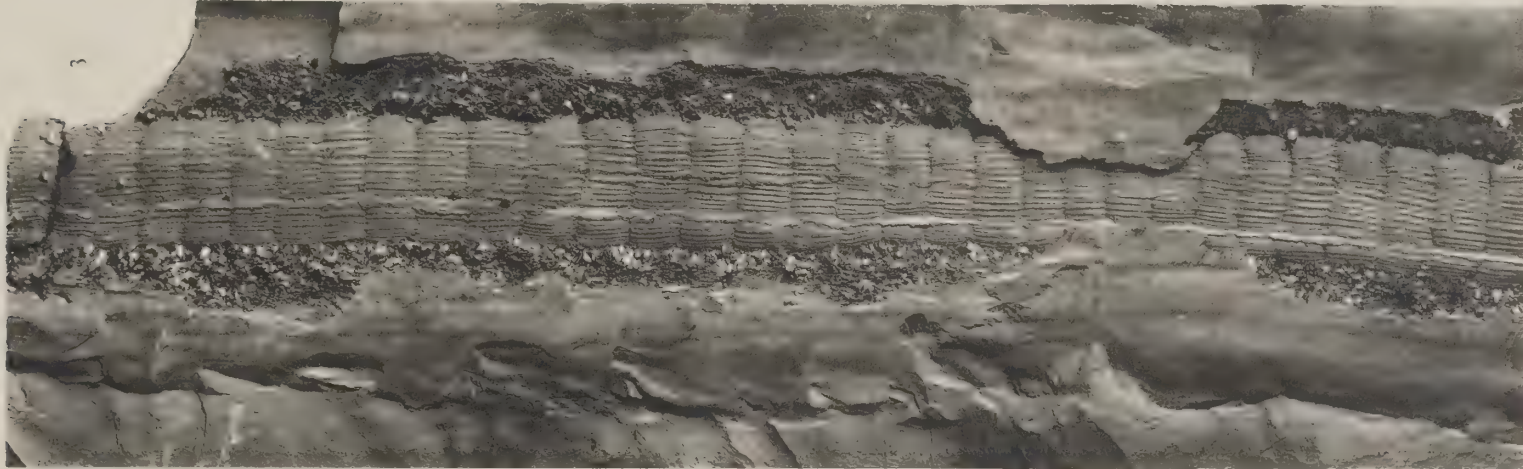




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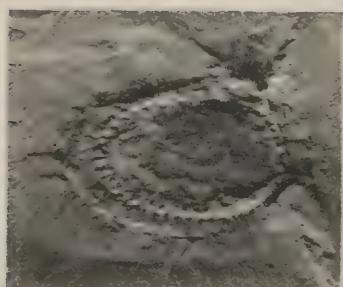




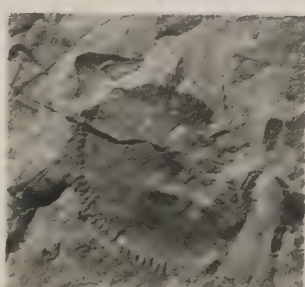
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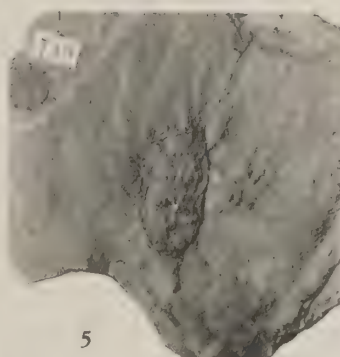
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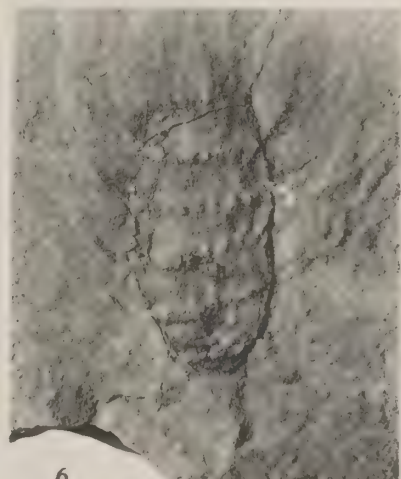
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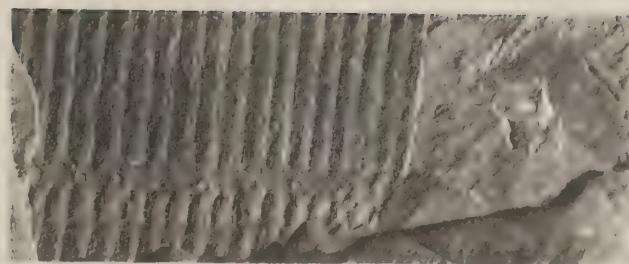
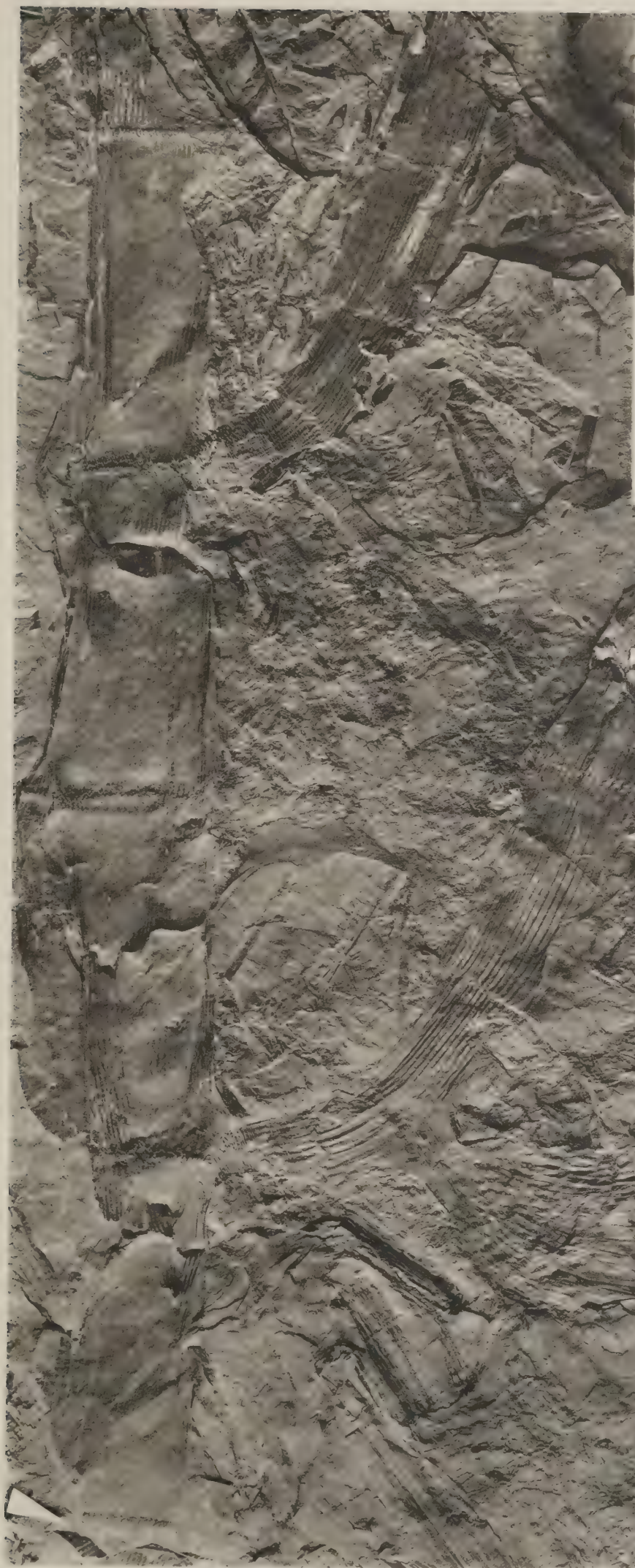




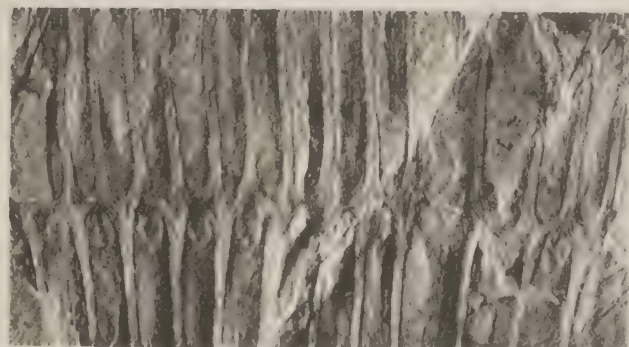








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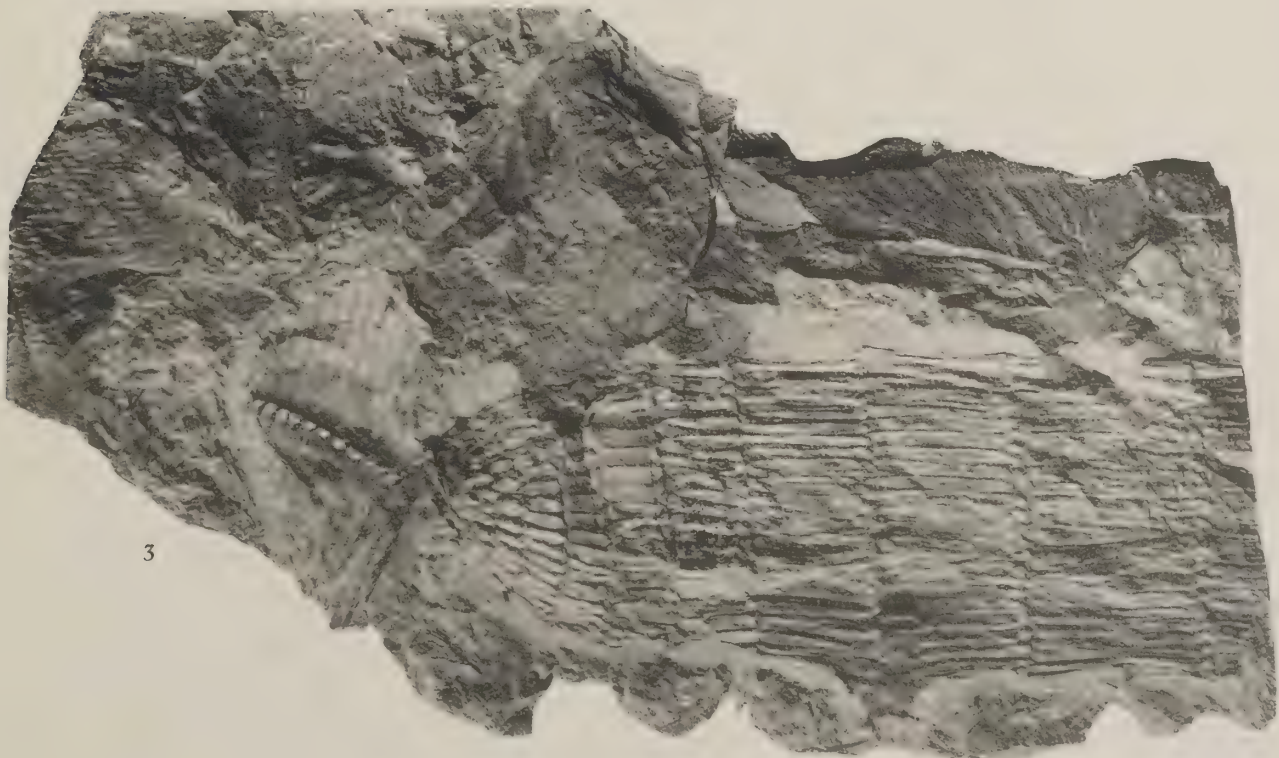
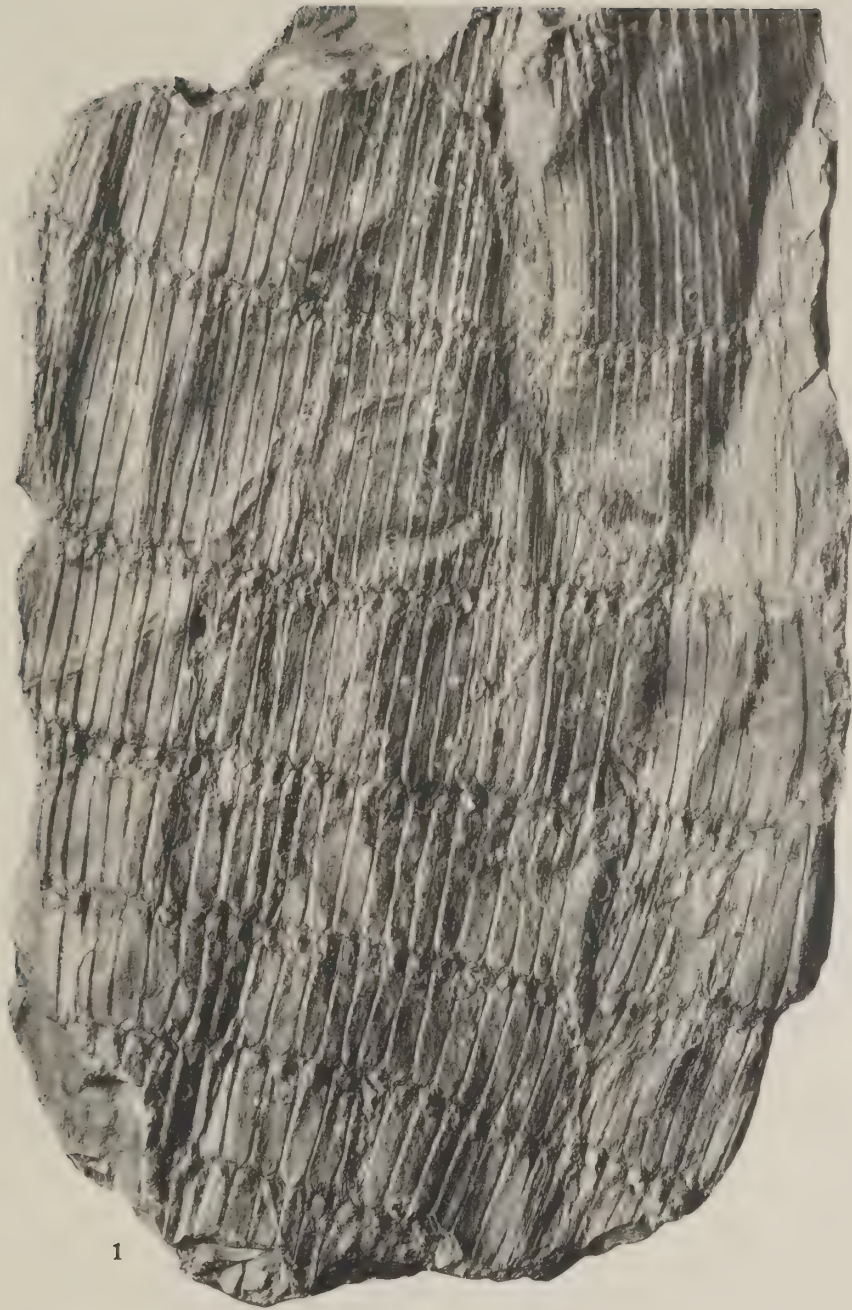


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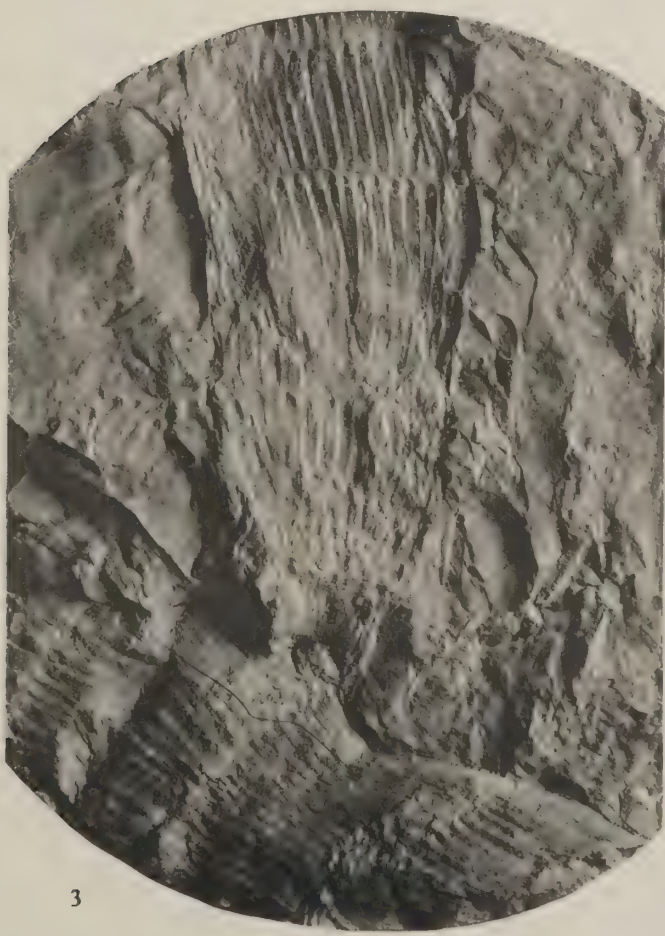






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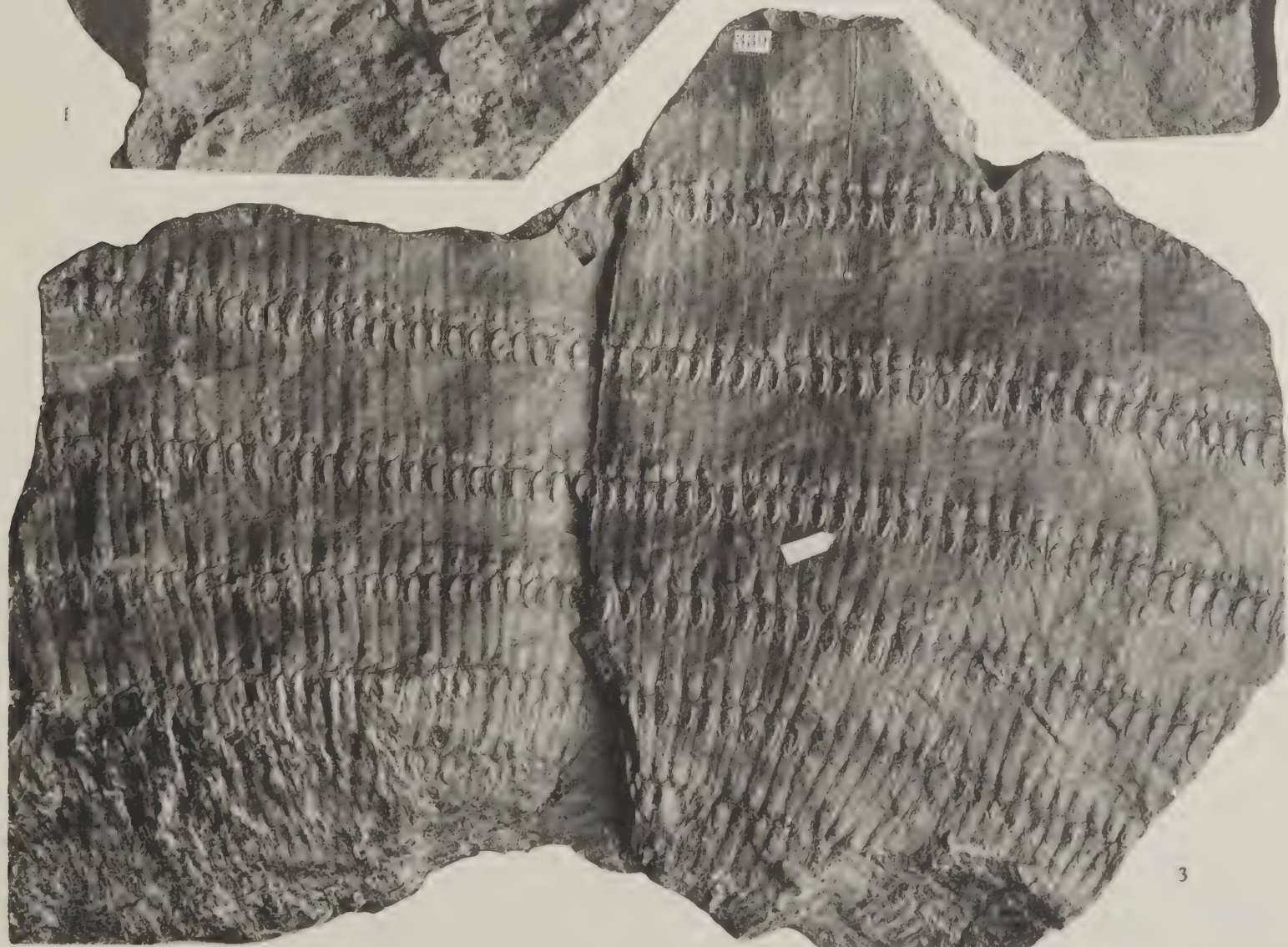










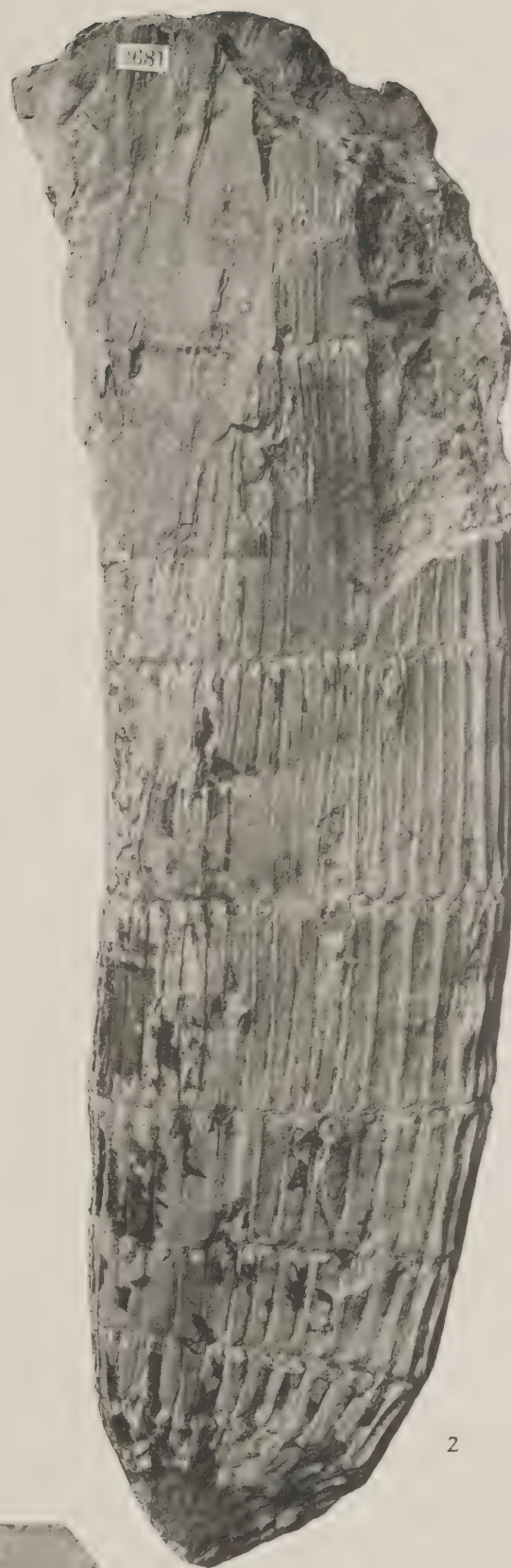








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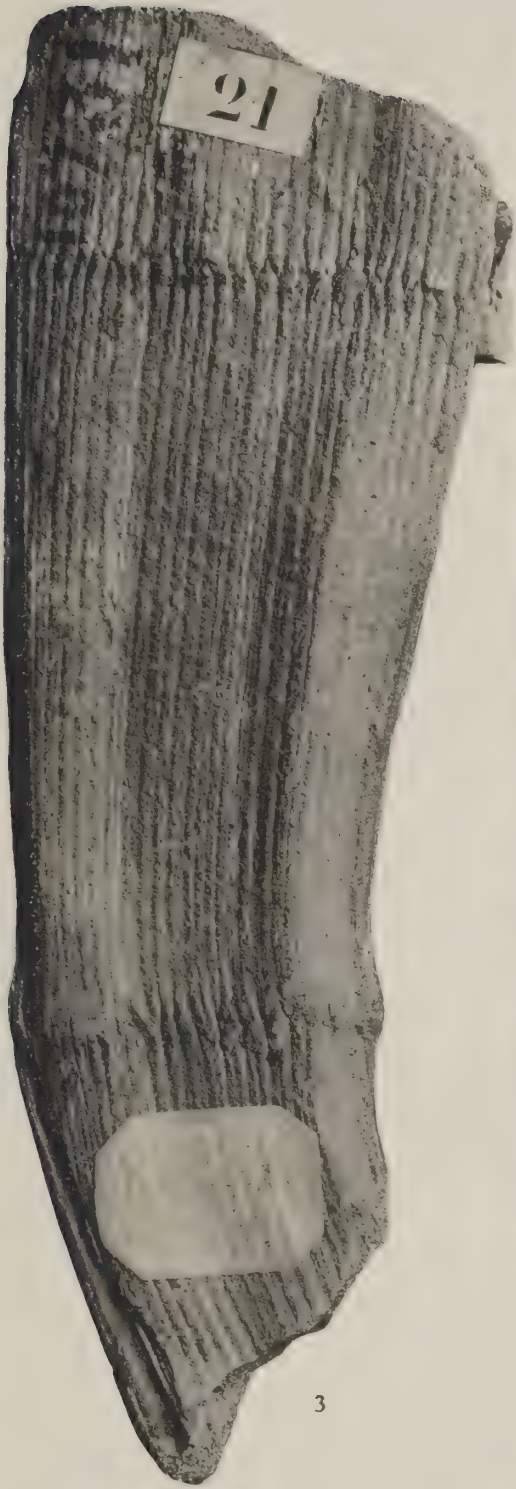
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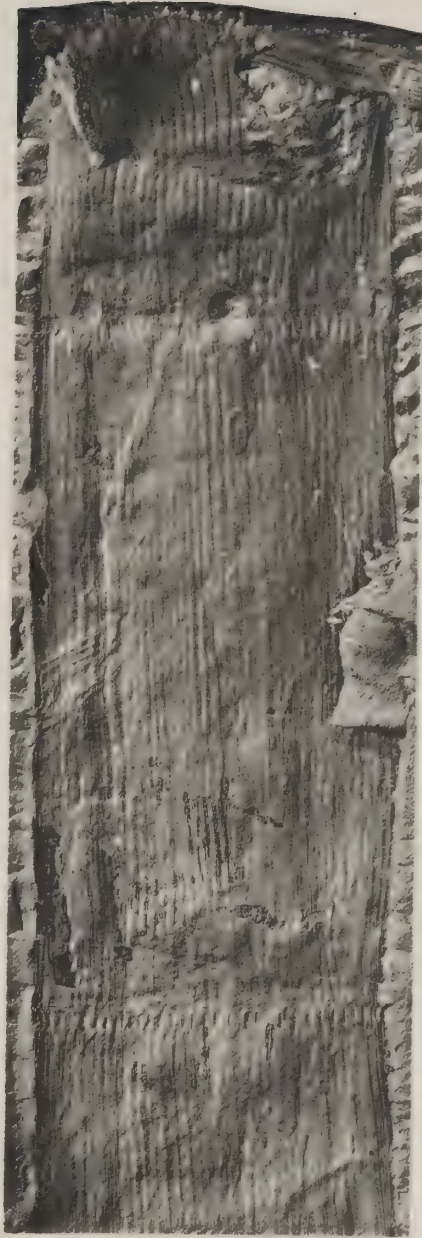
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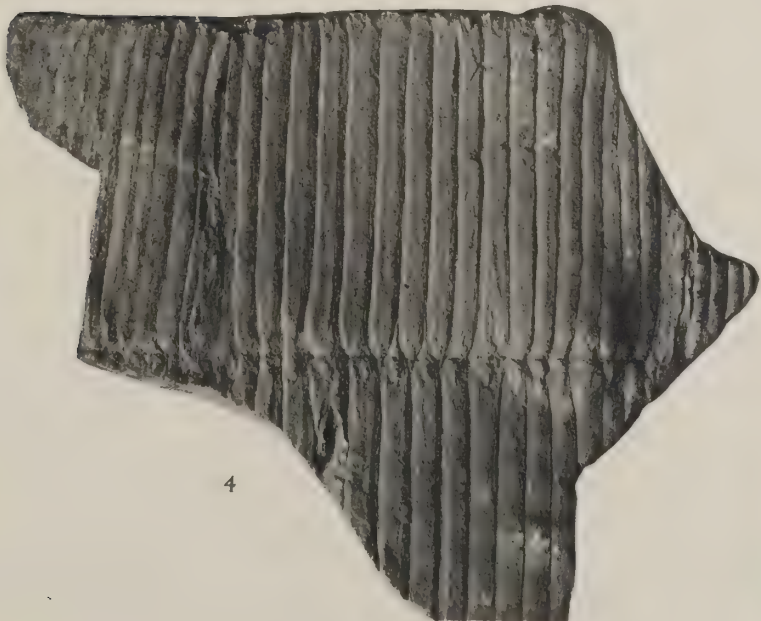
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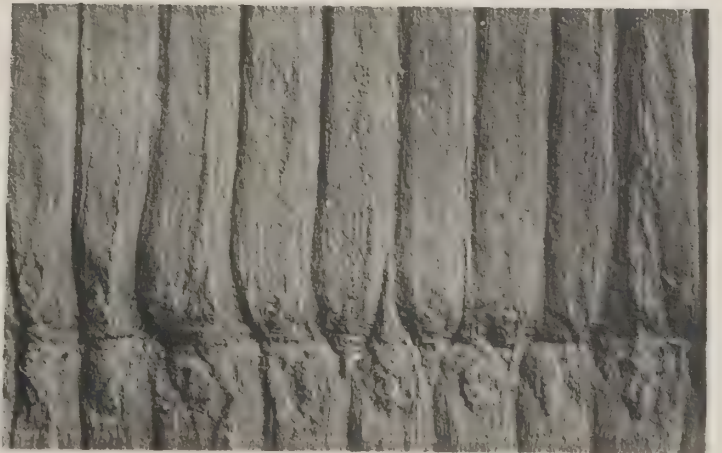
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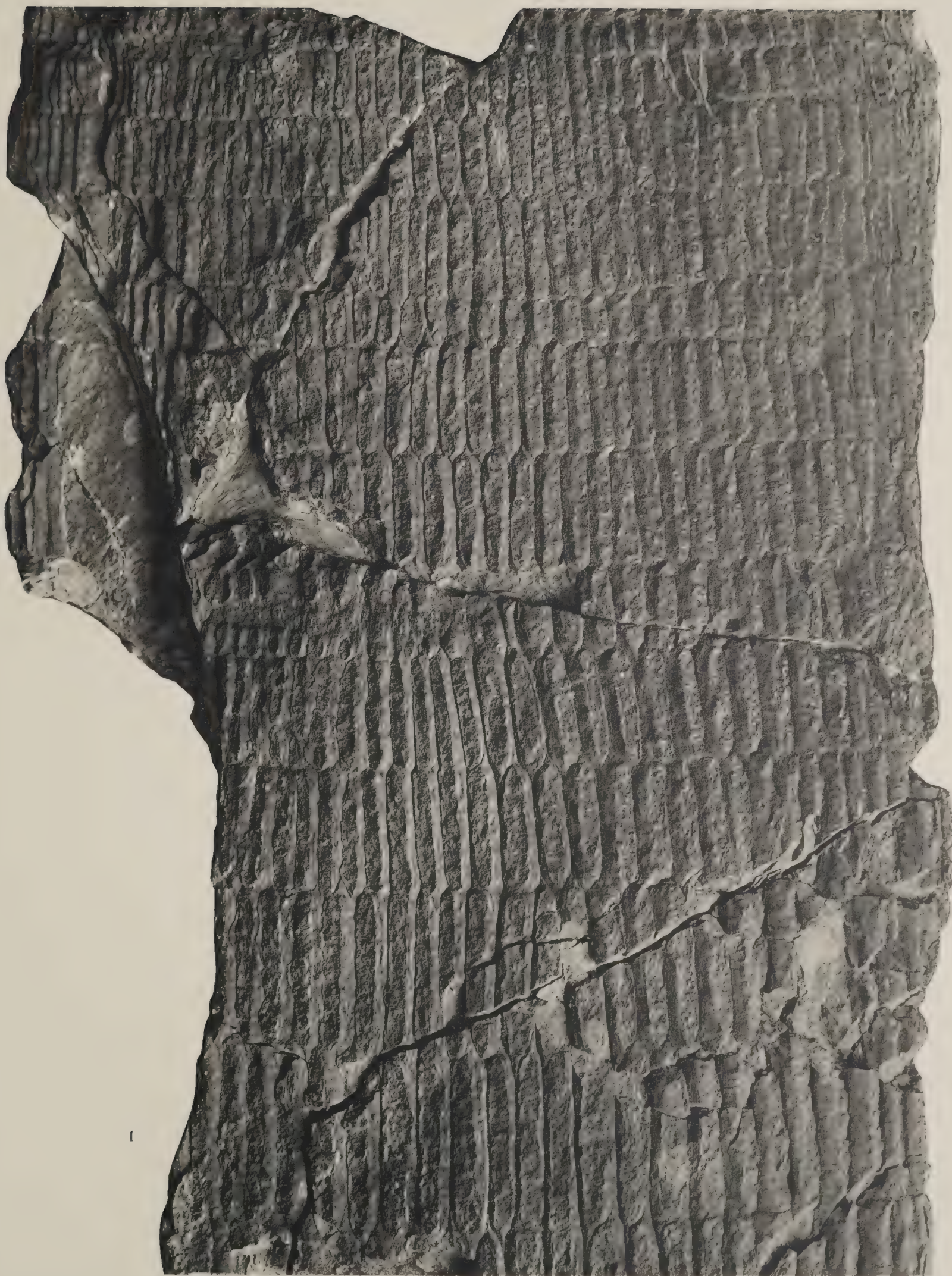


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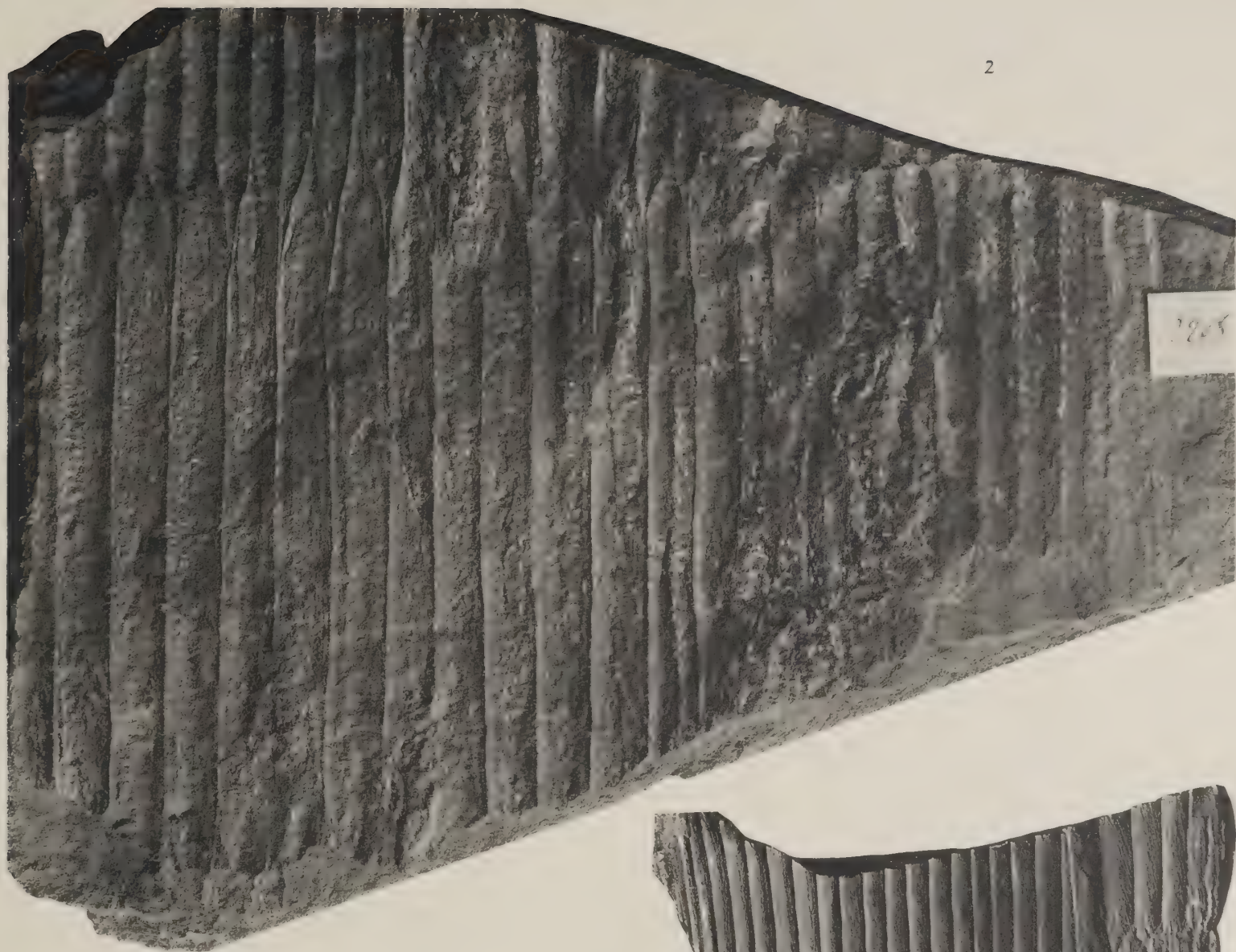




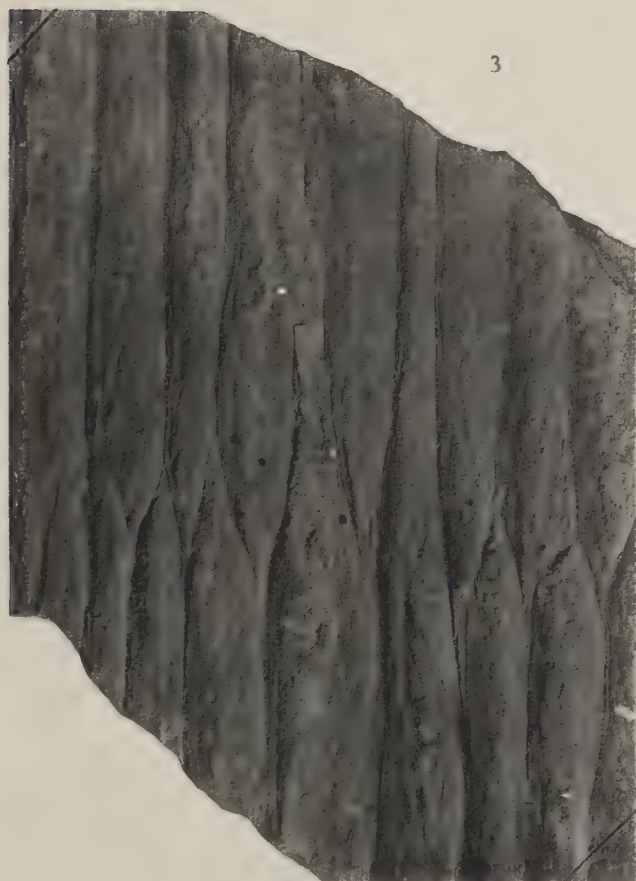
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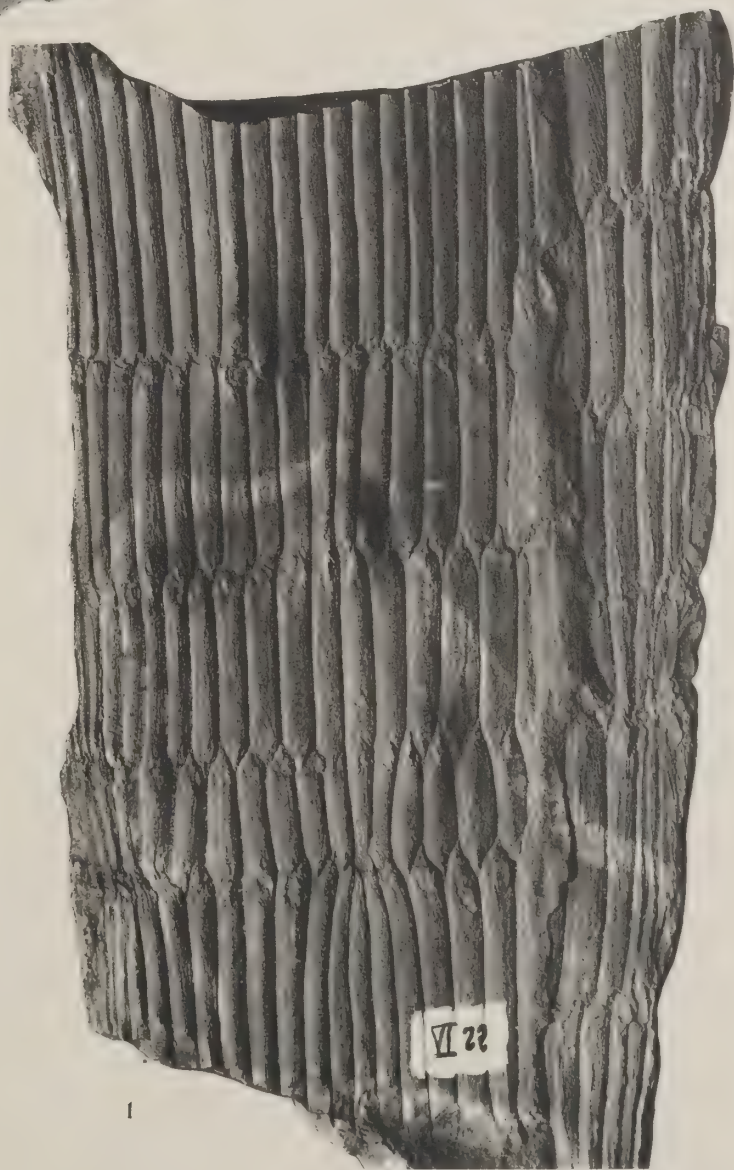




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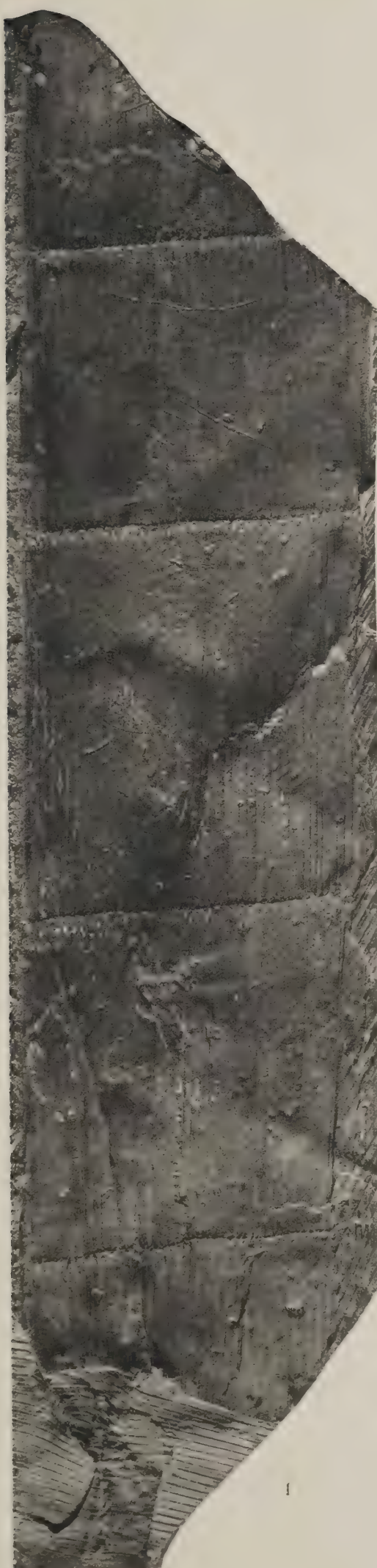






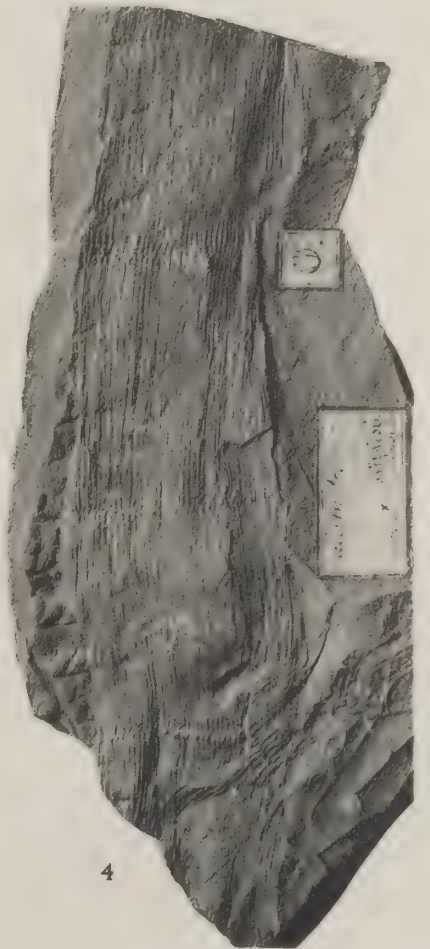
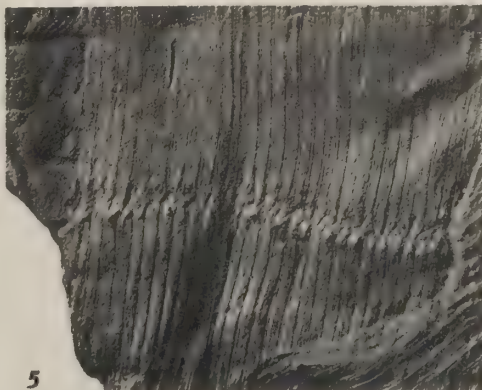


















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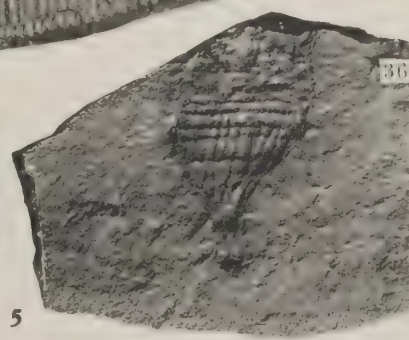
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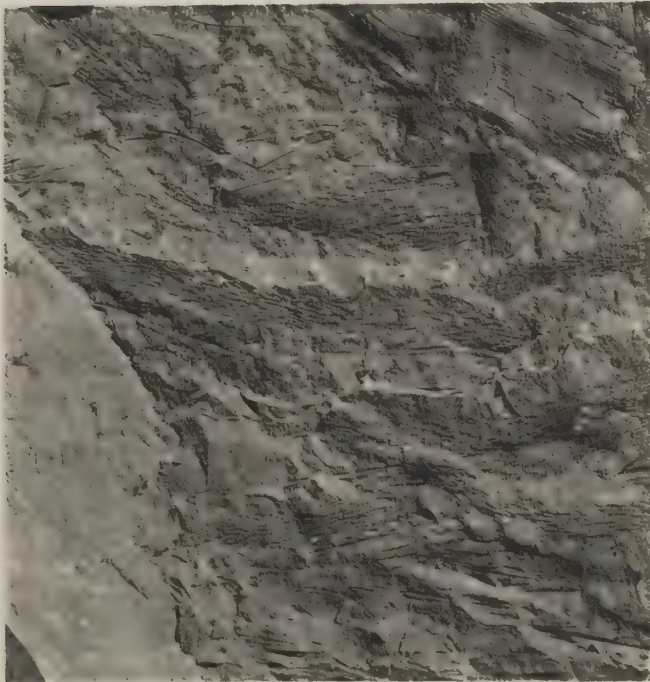




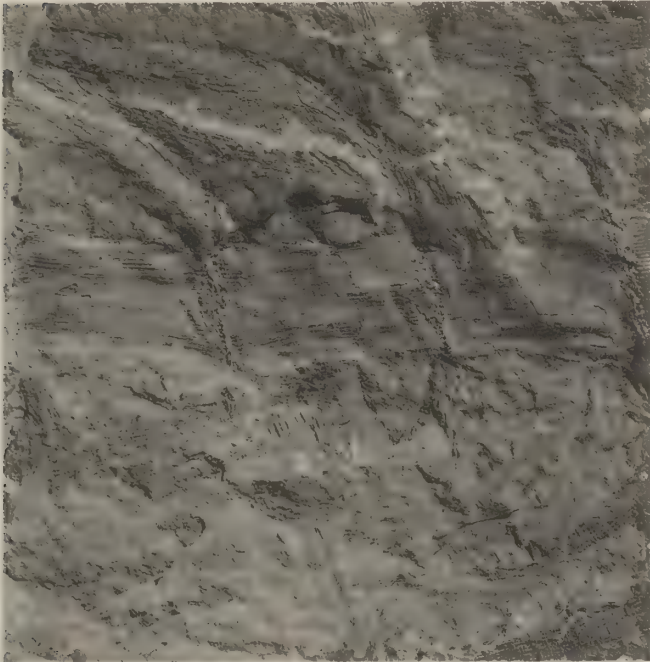




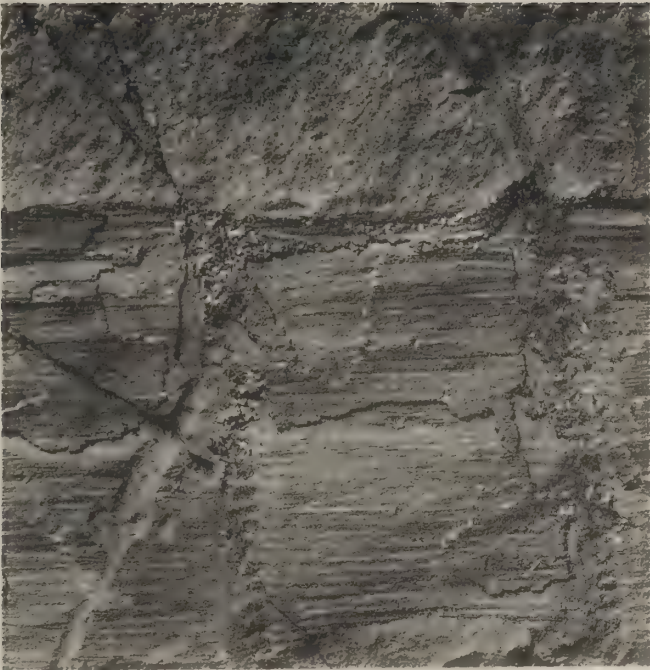
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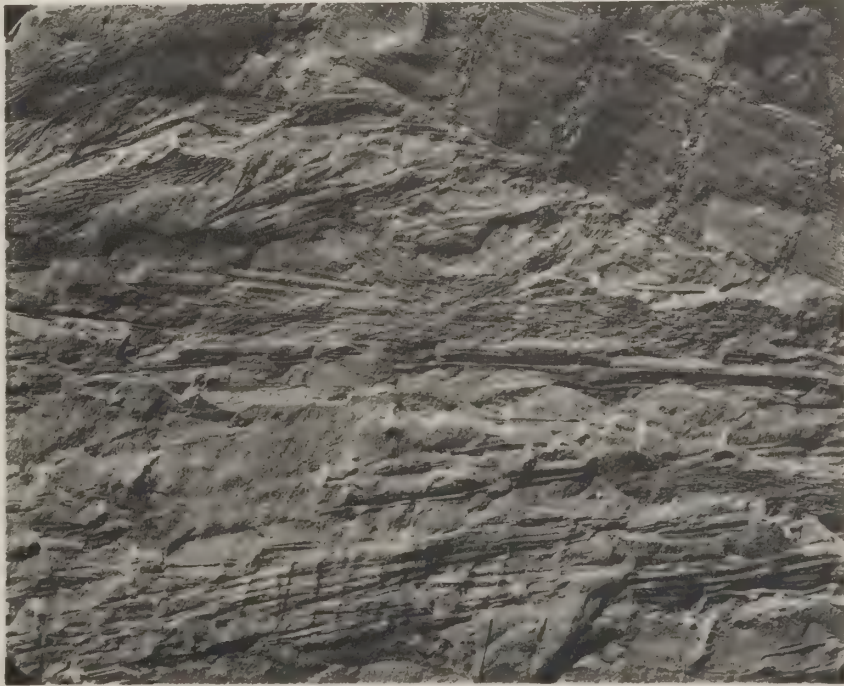
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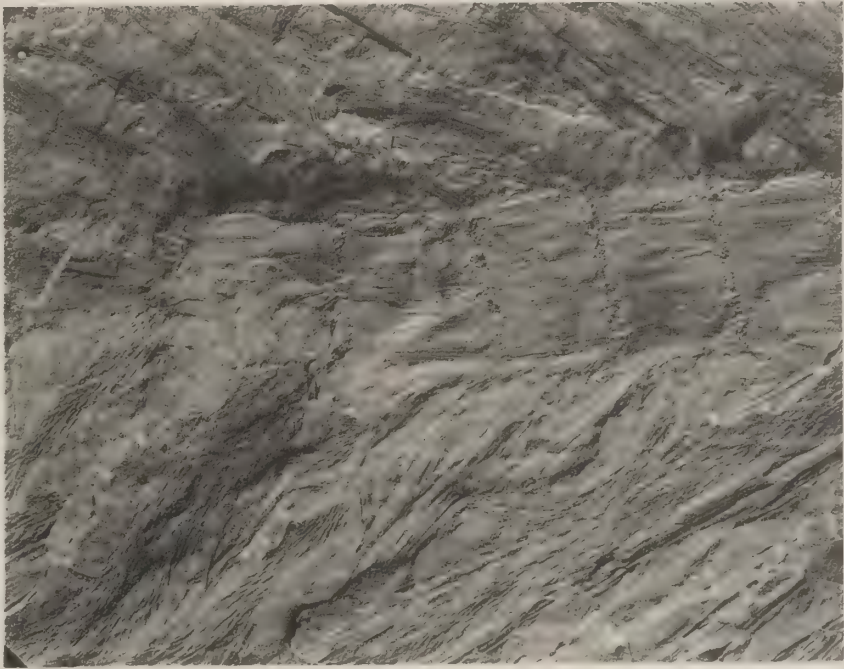
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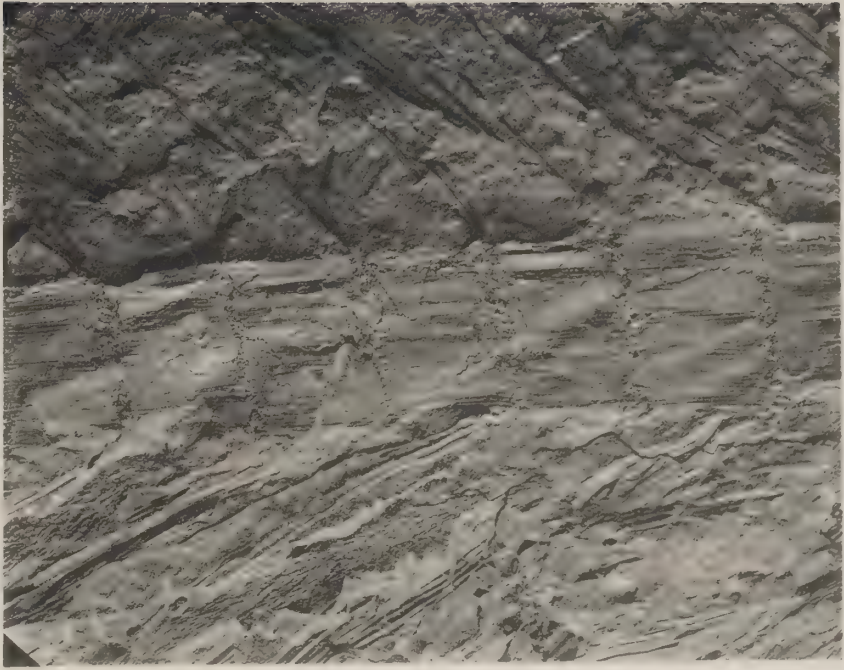
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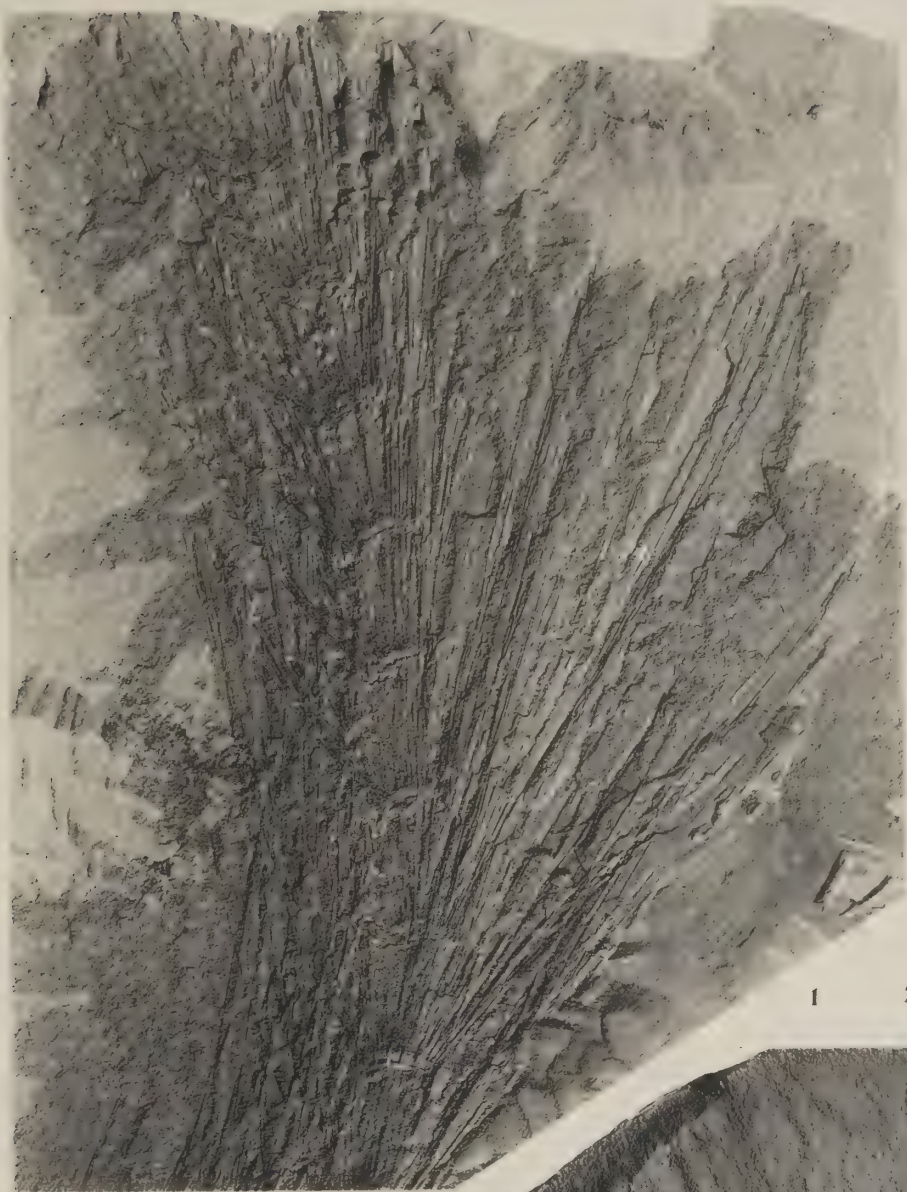




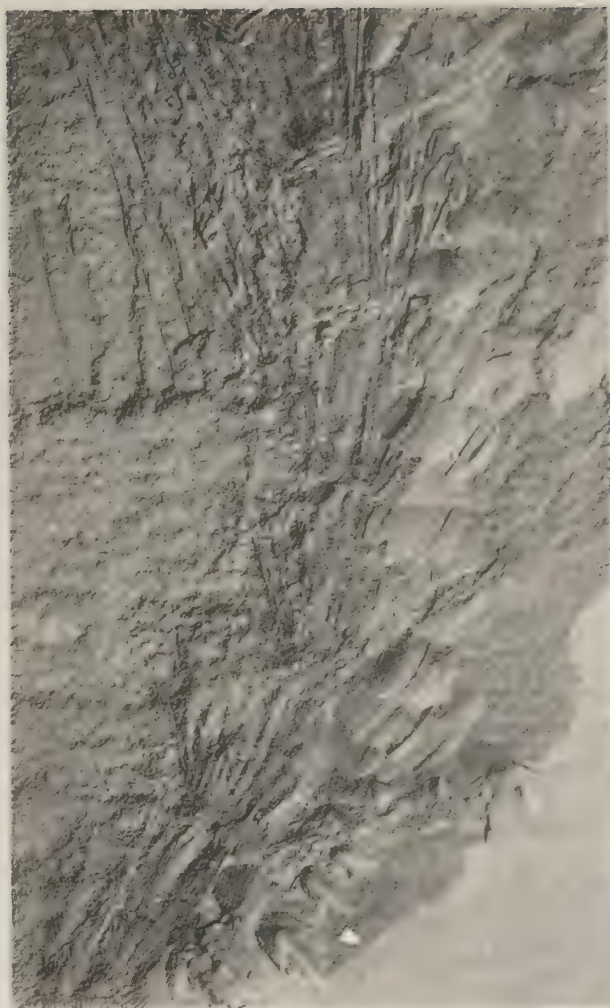




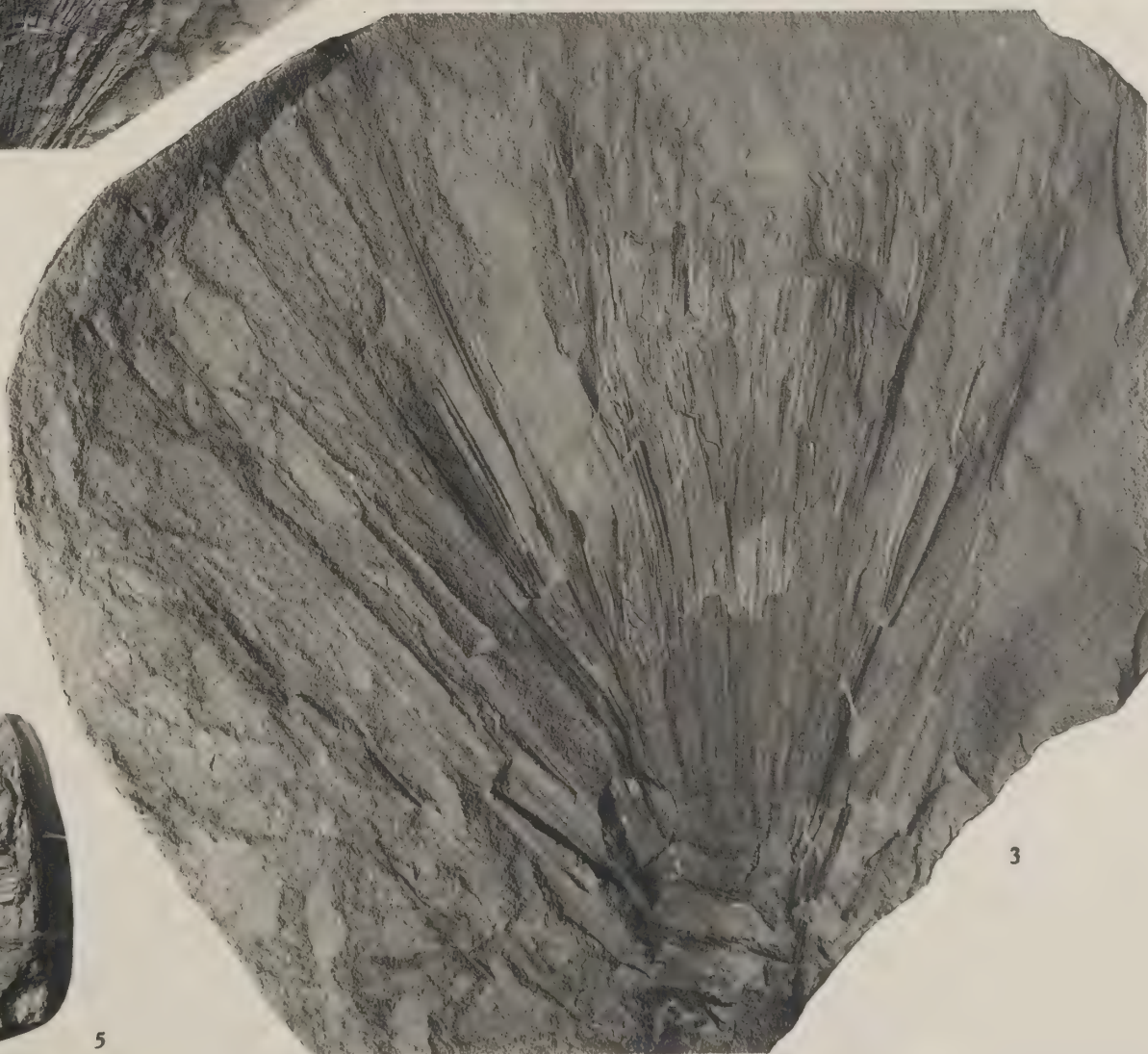




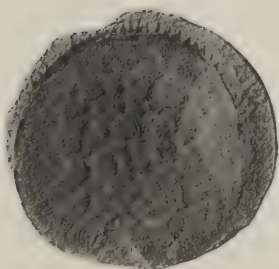
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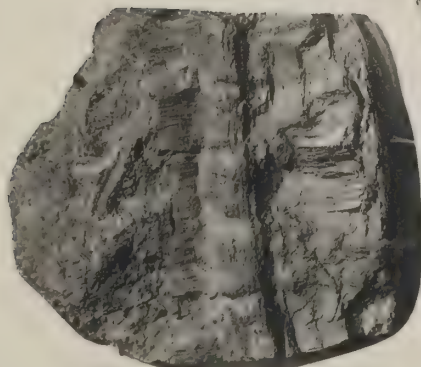
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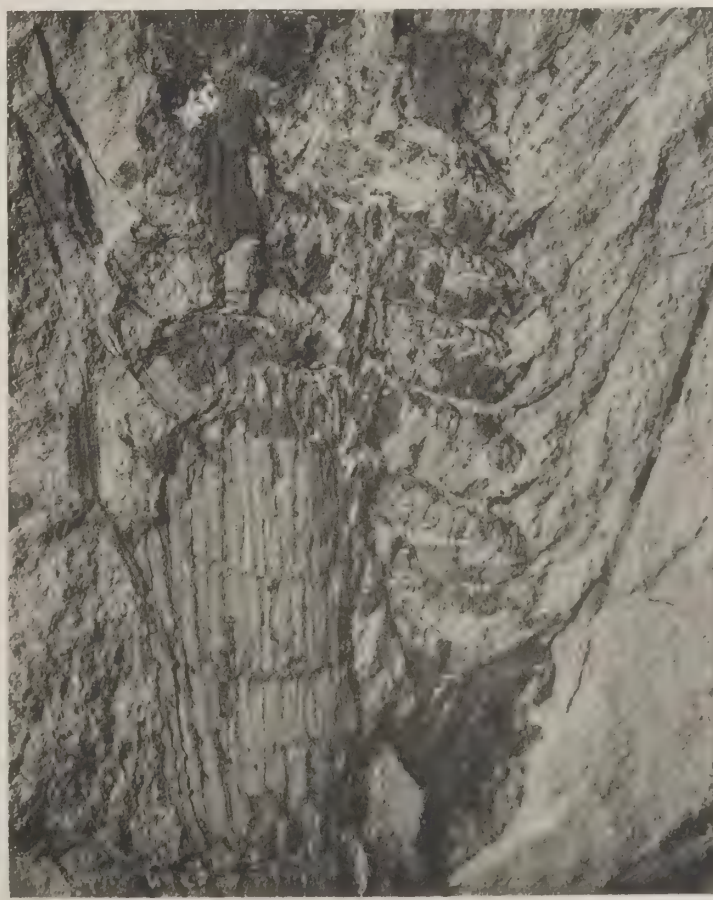


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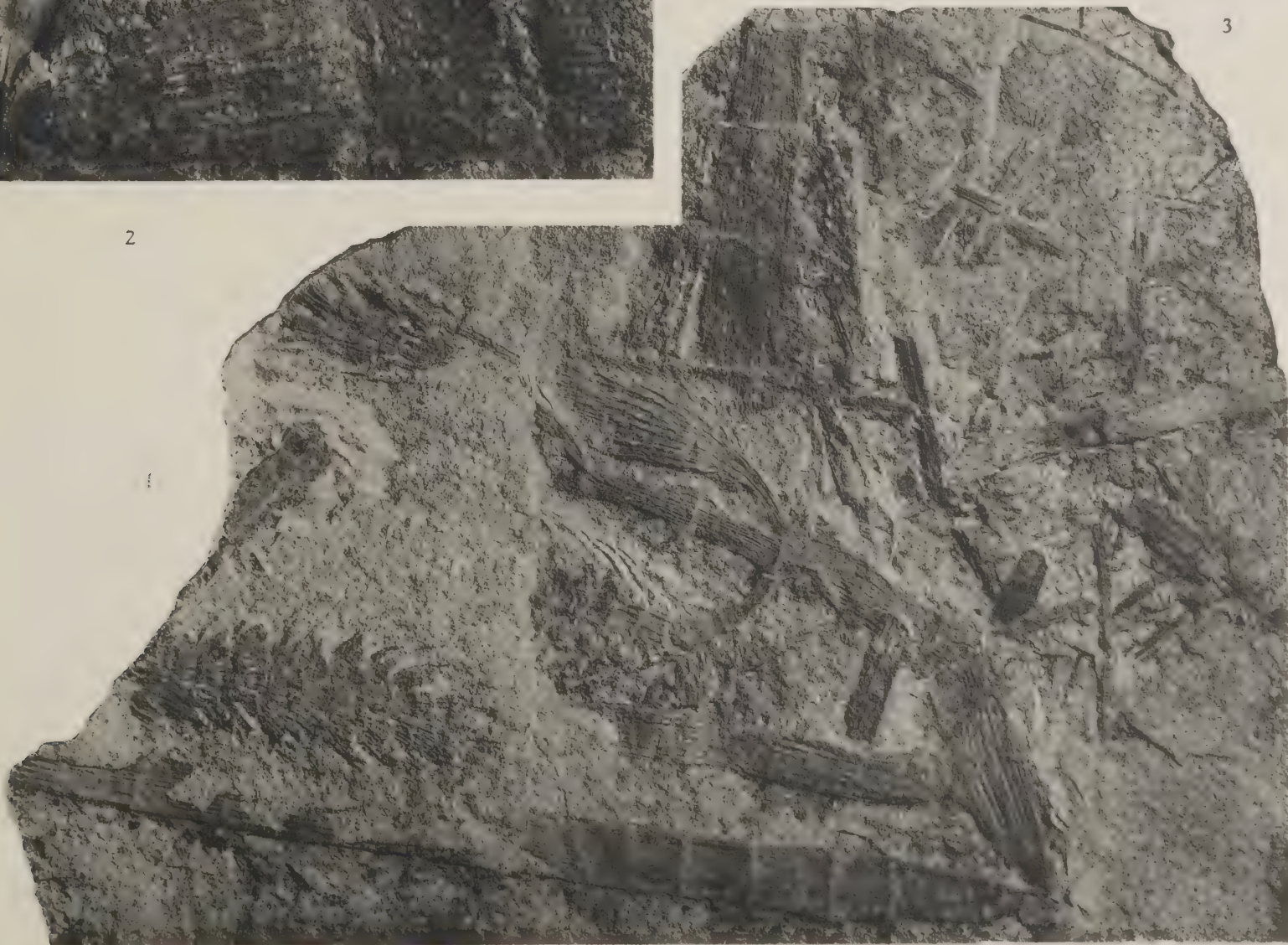




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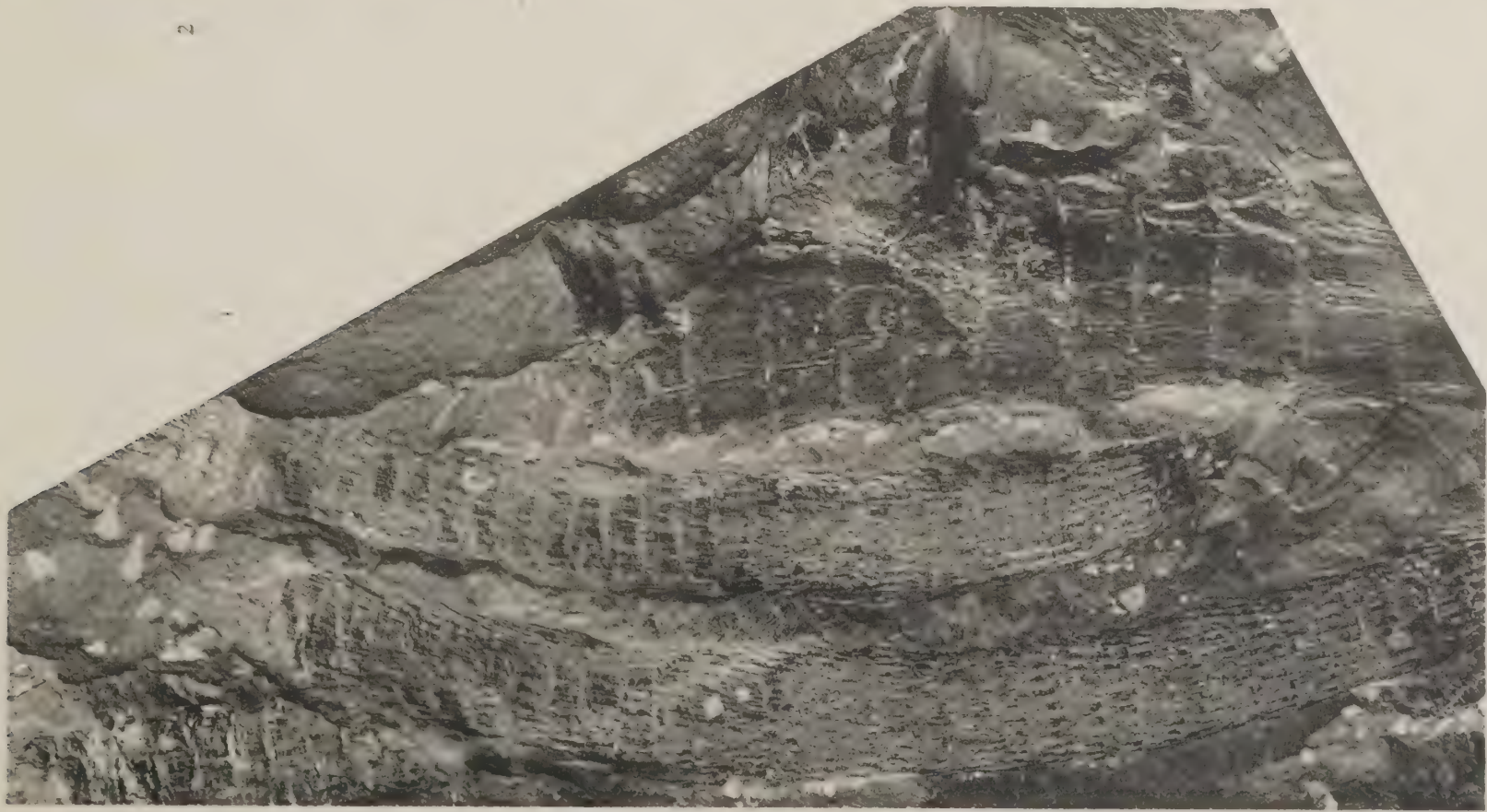






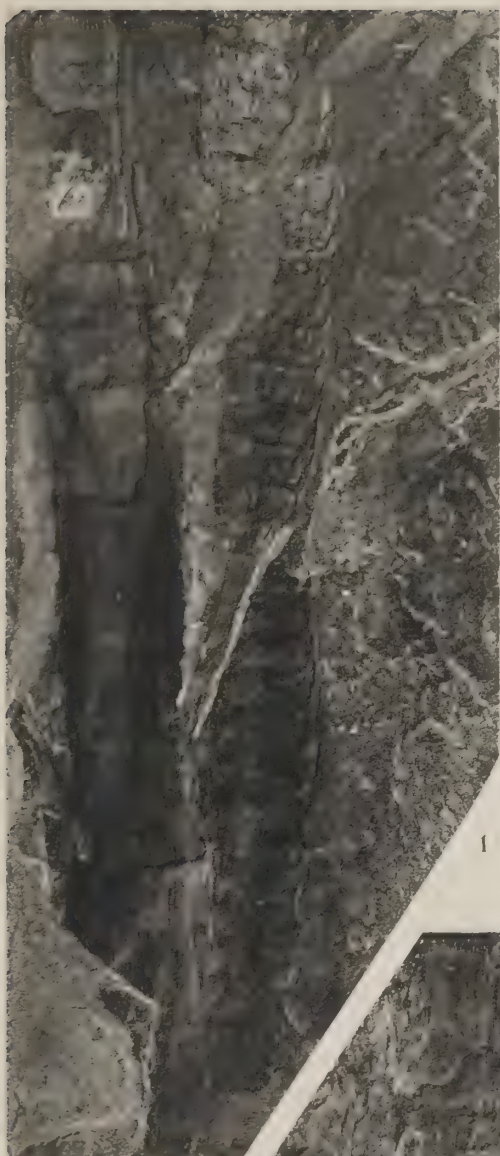


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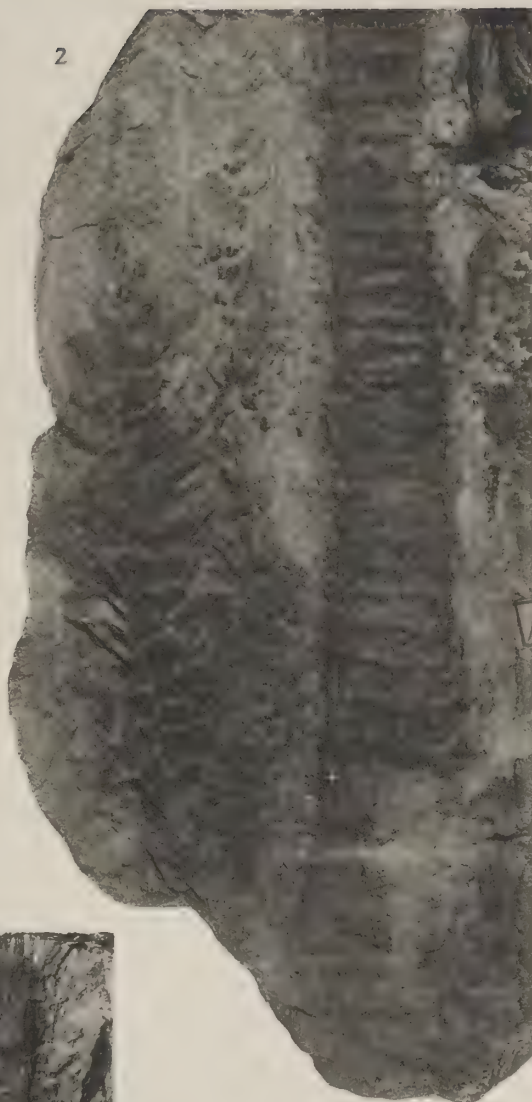




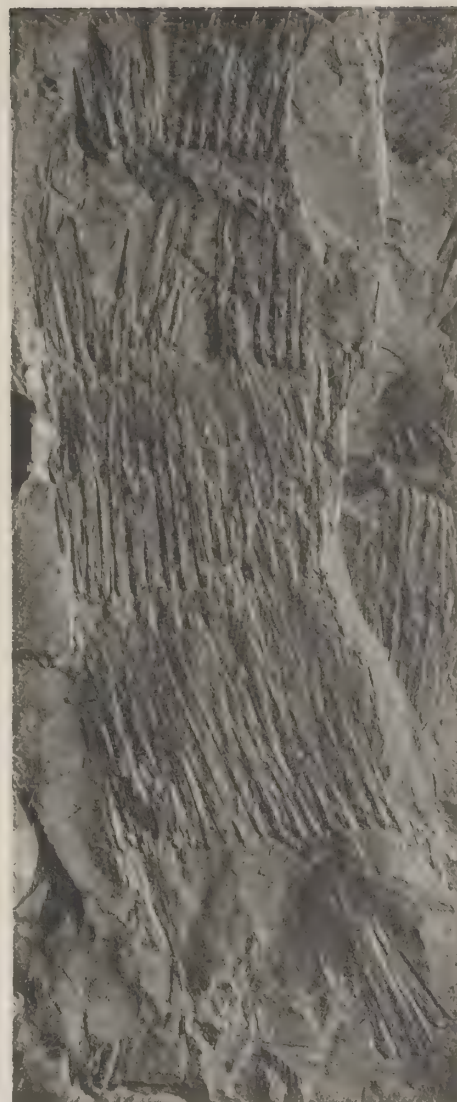




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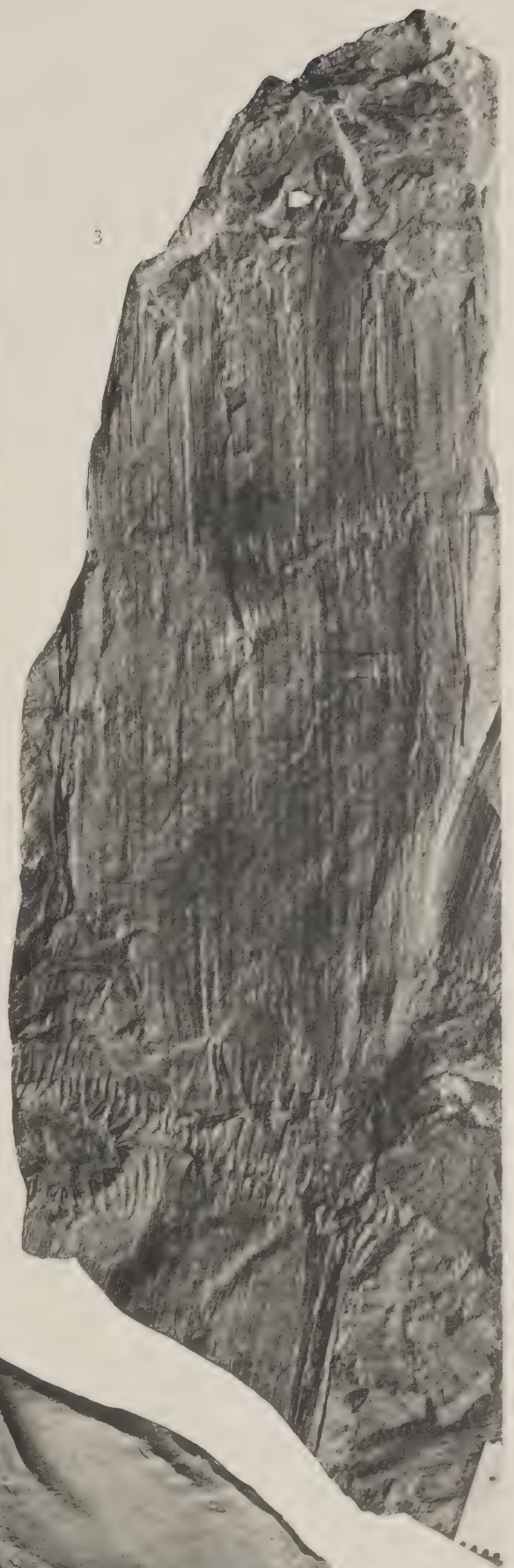
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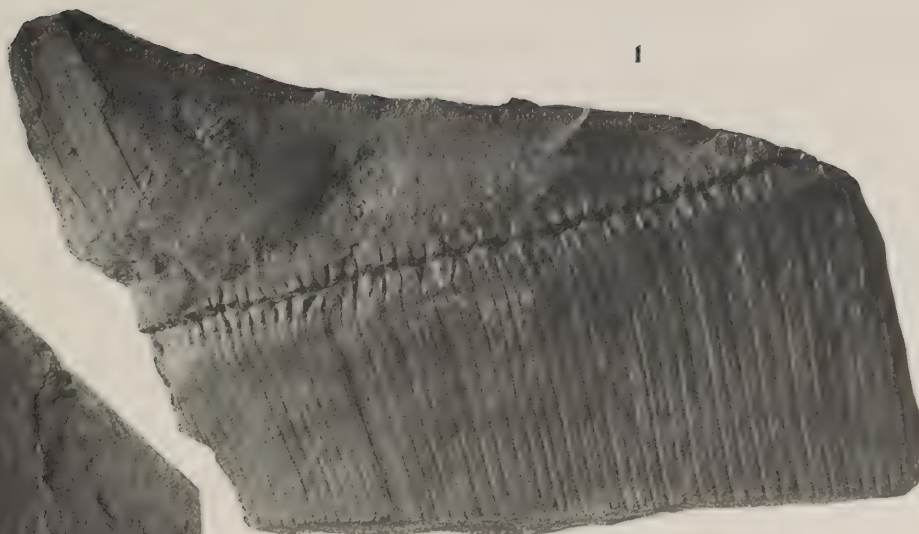




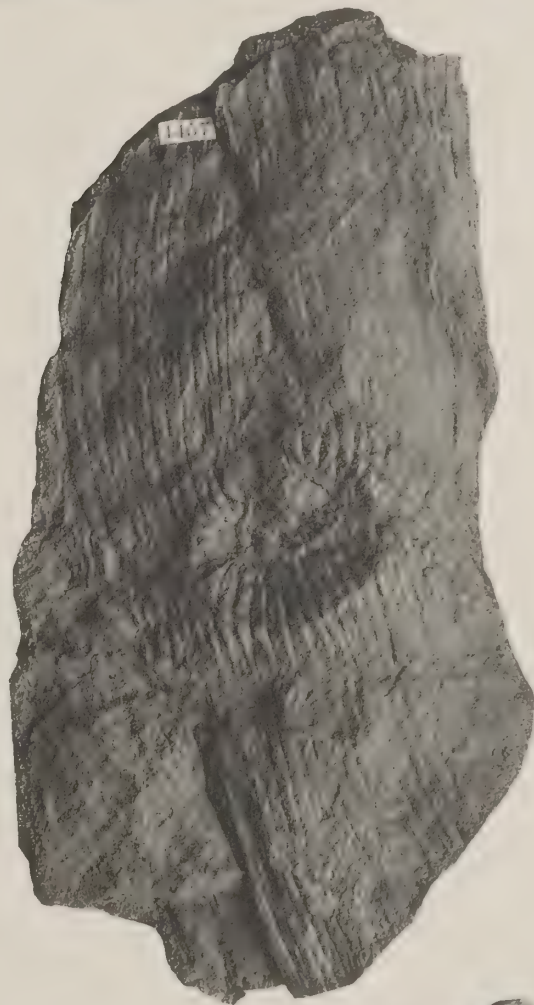








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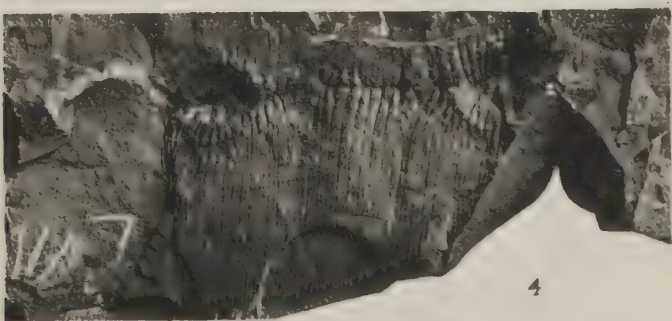


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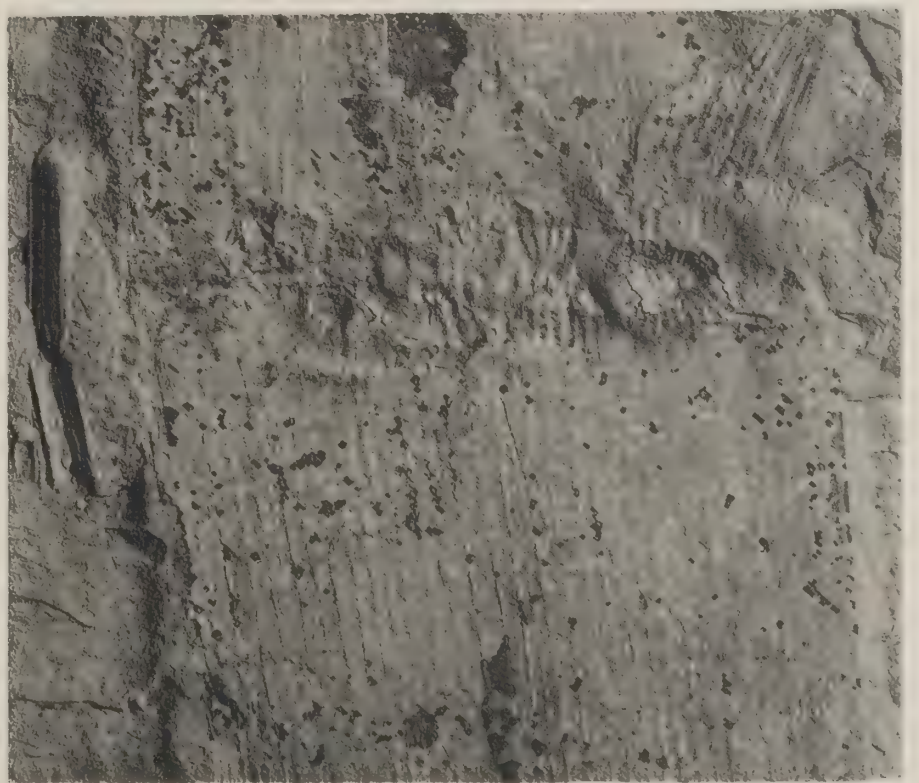
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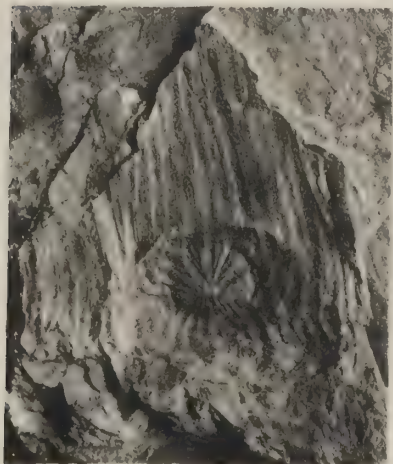
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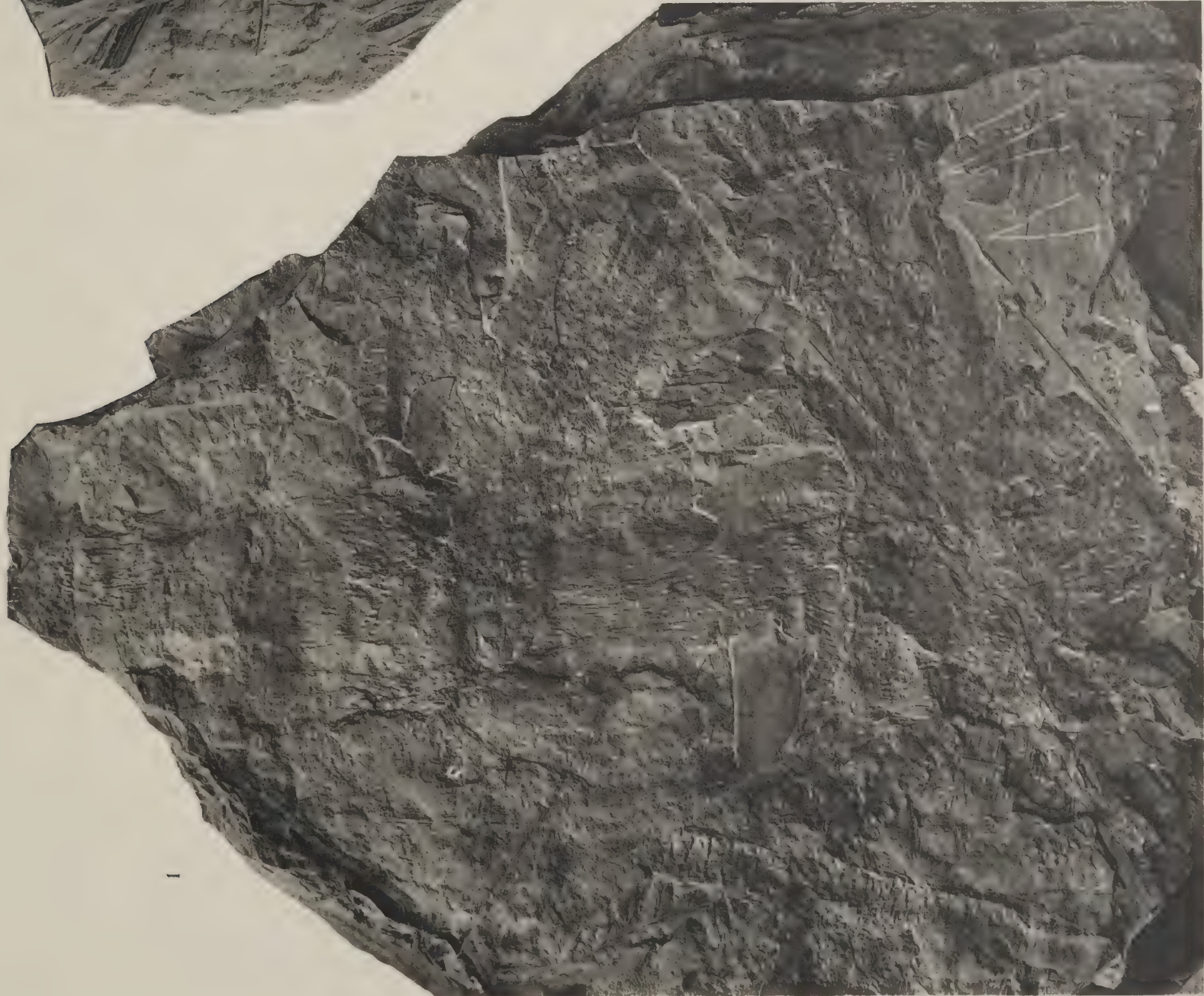


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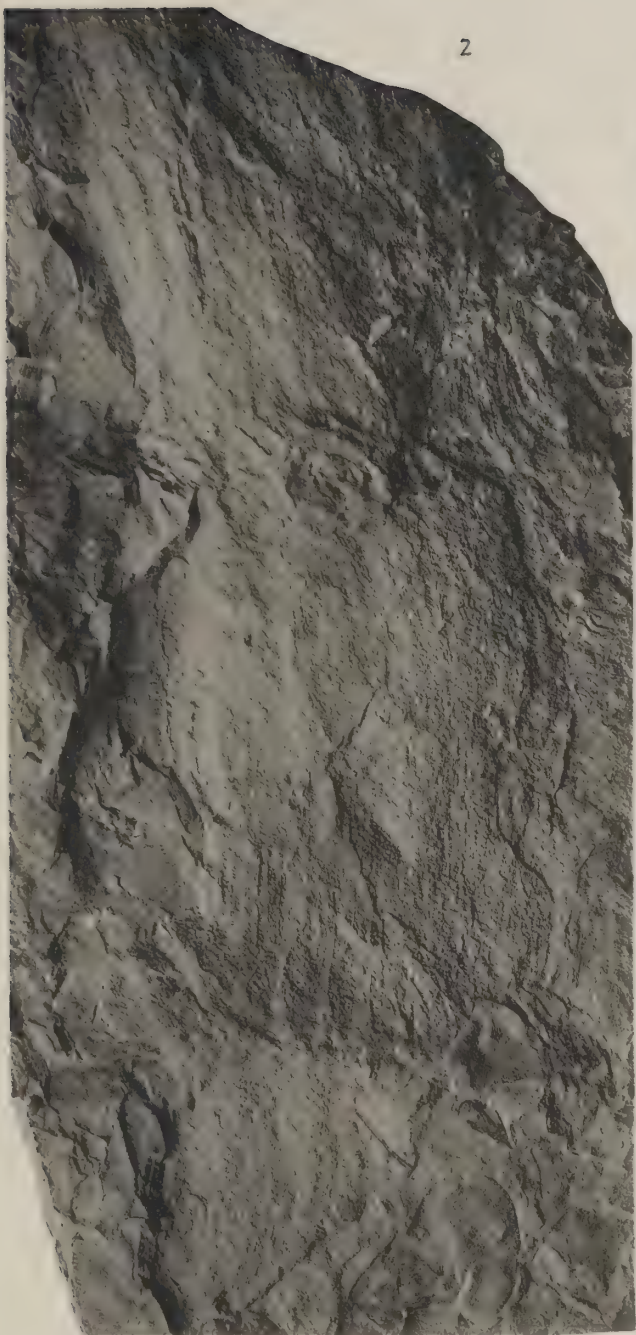


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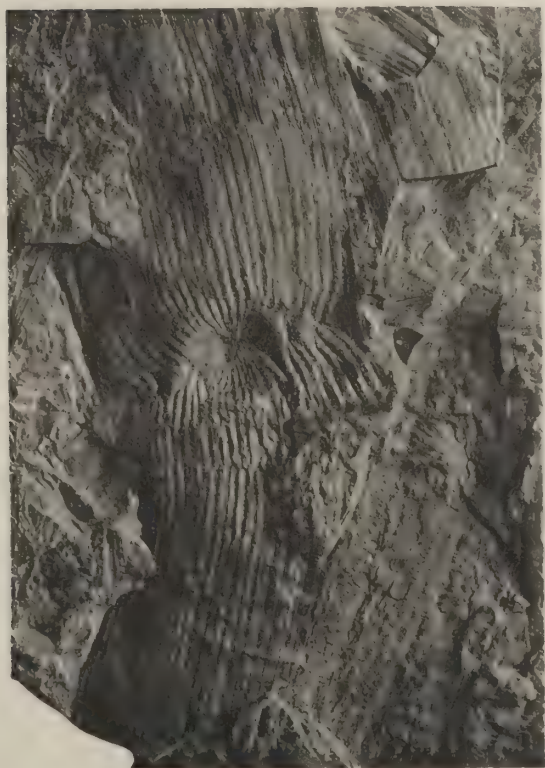








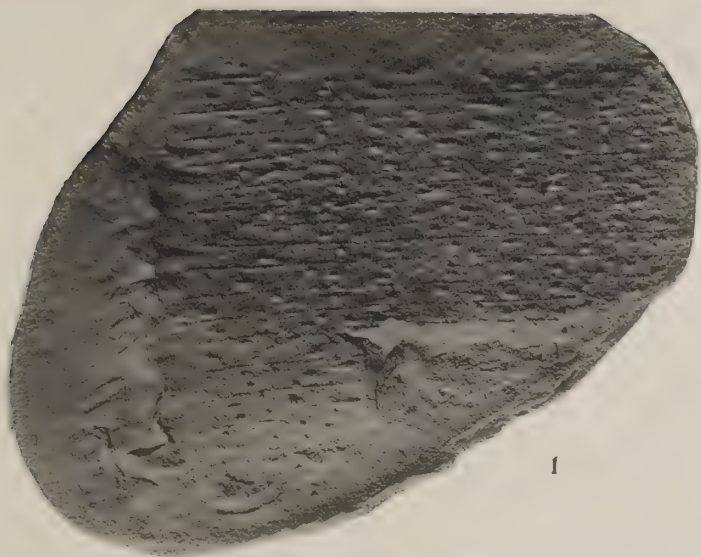
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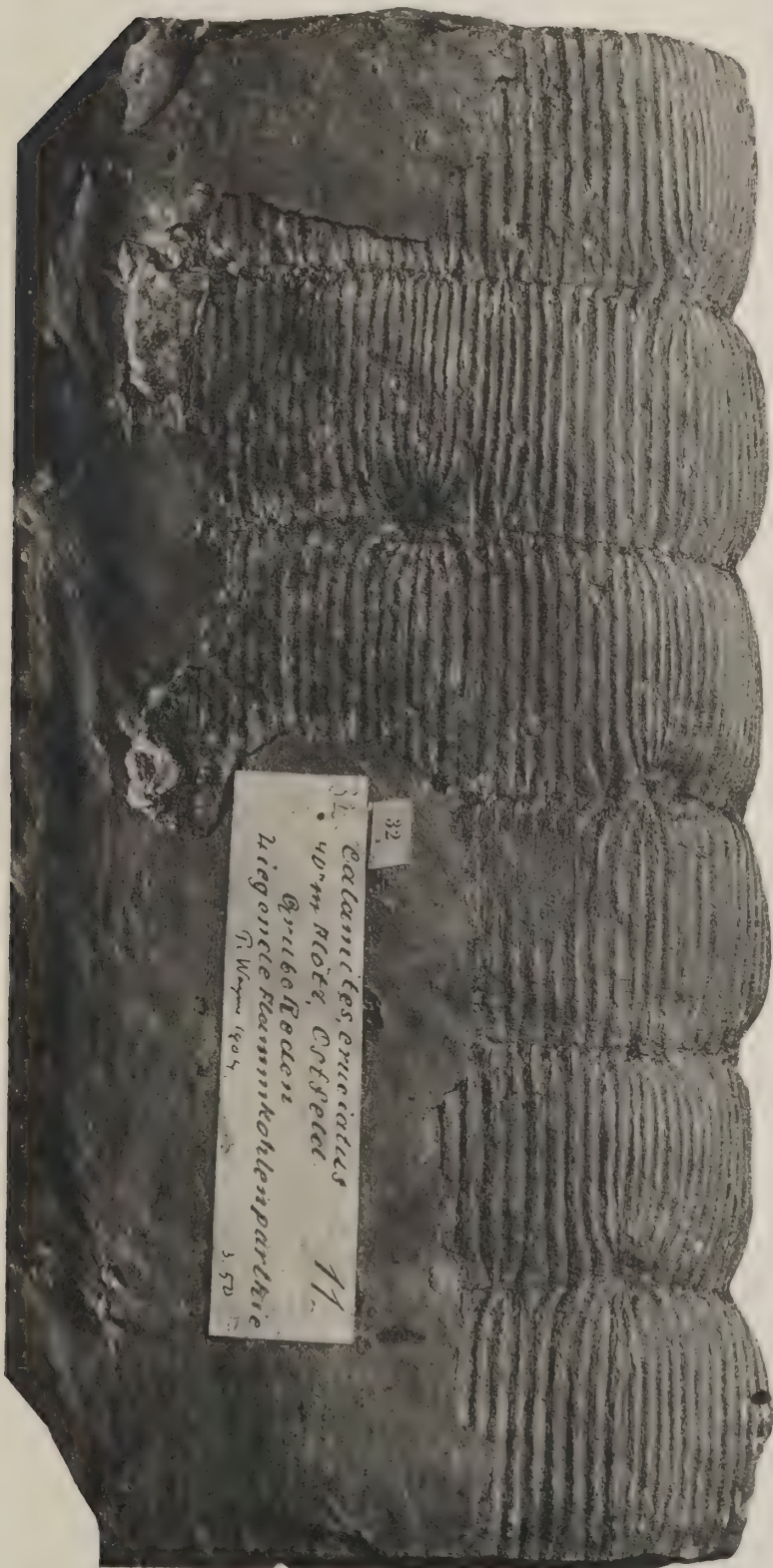




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32.  
Calamites emicatus 11.  
40 m. Rots, Ostsee  
Gruß-Roden  
Niegunde Stammkohlensparthe  
N. Weyen 1804.  
3. 50

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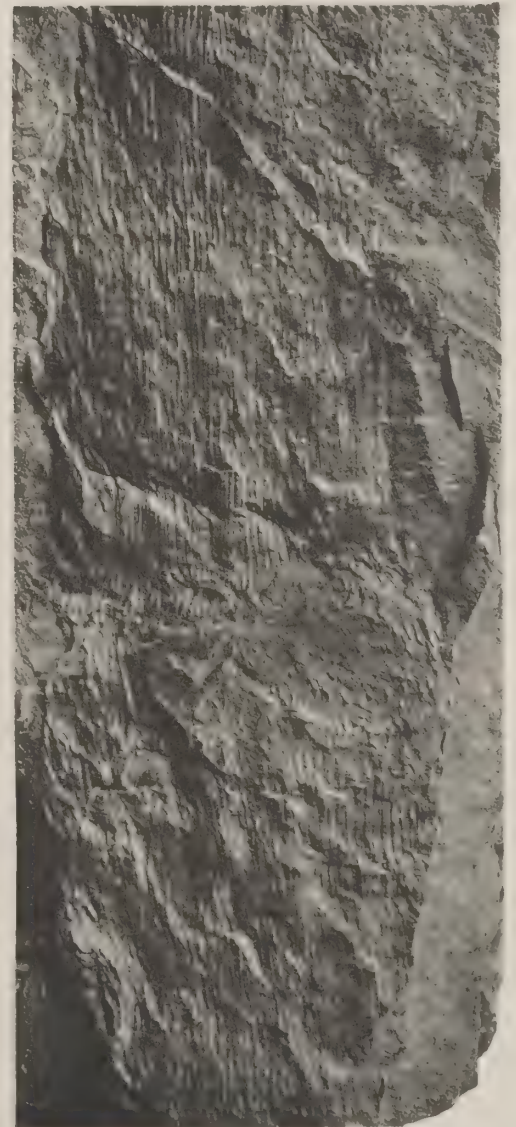
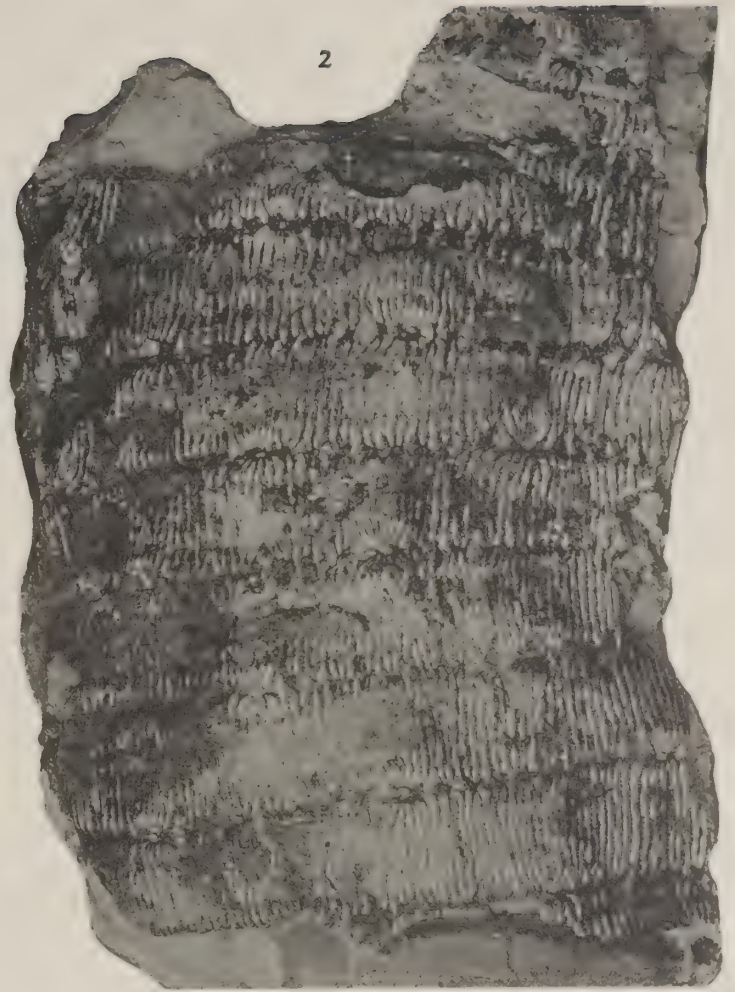
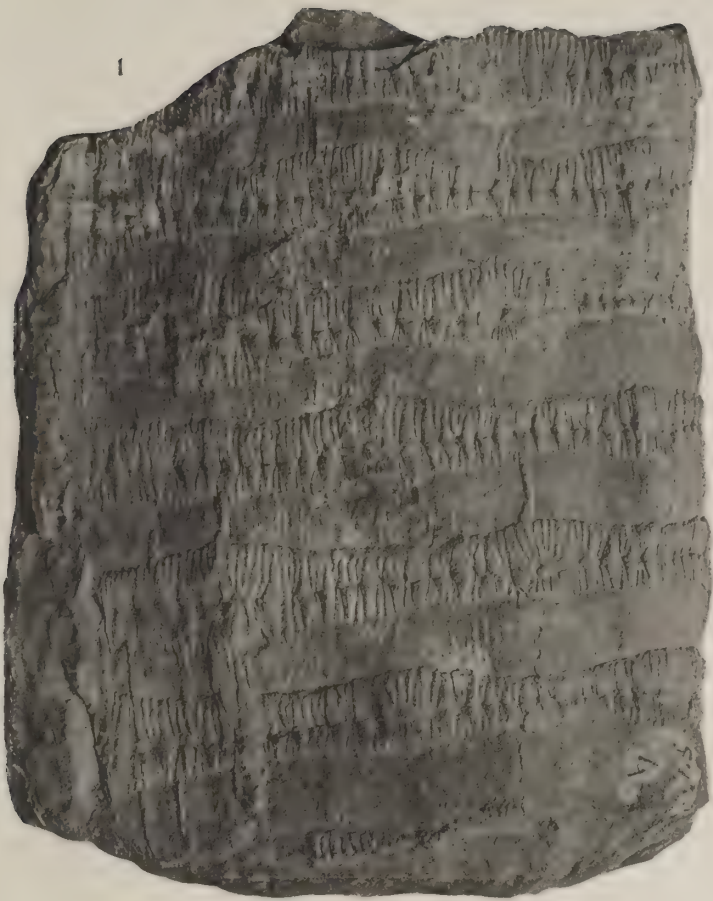
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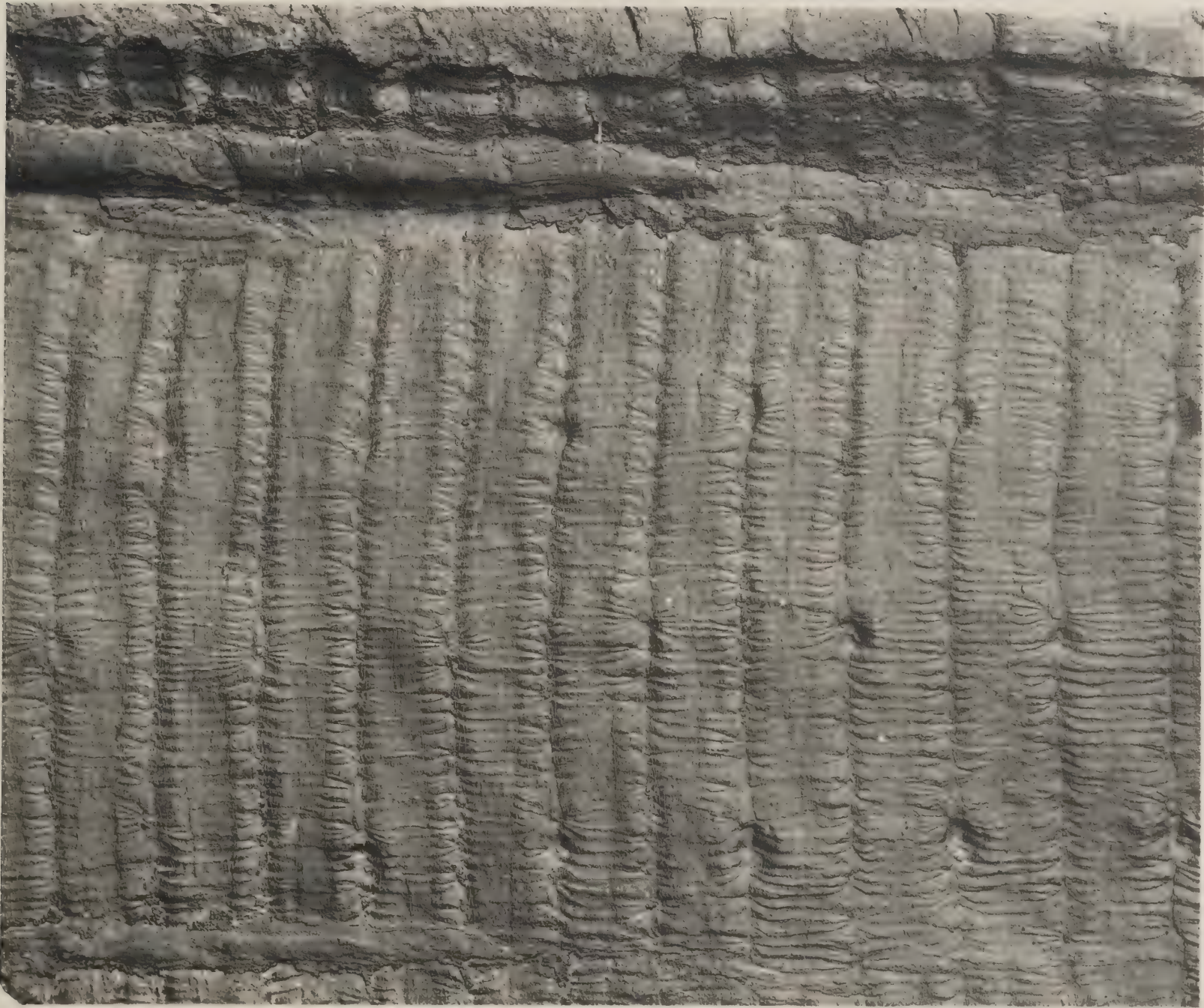
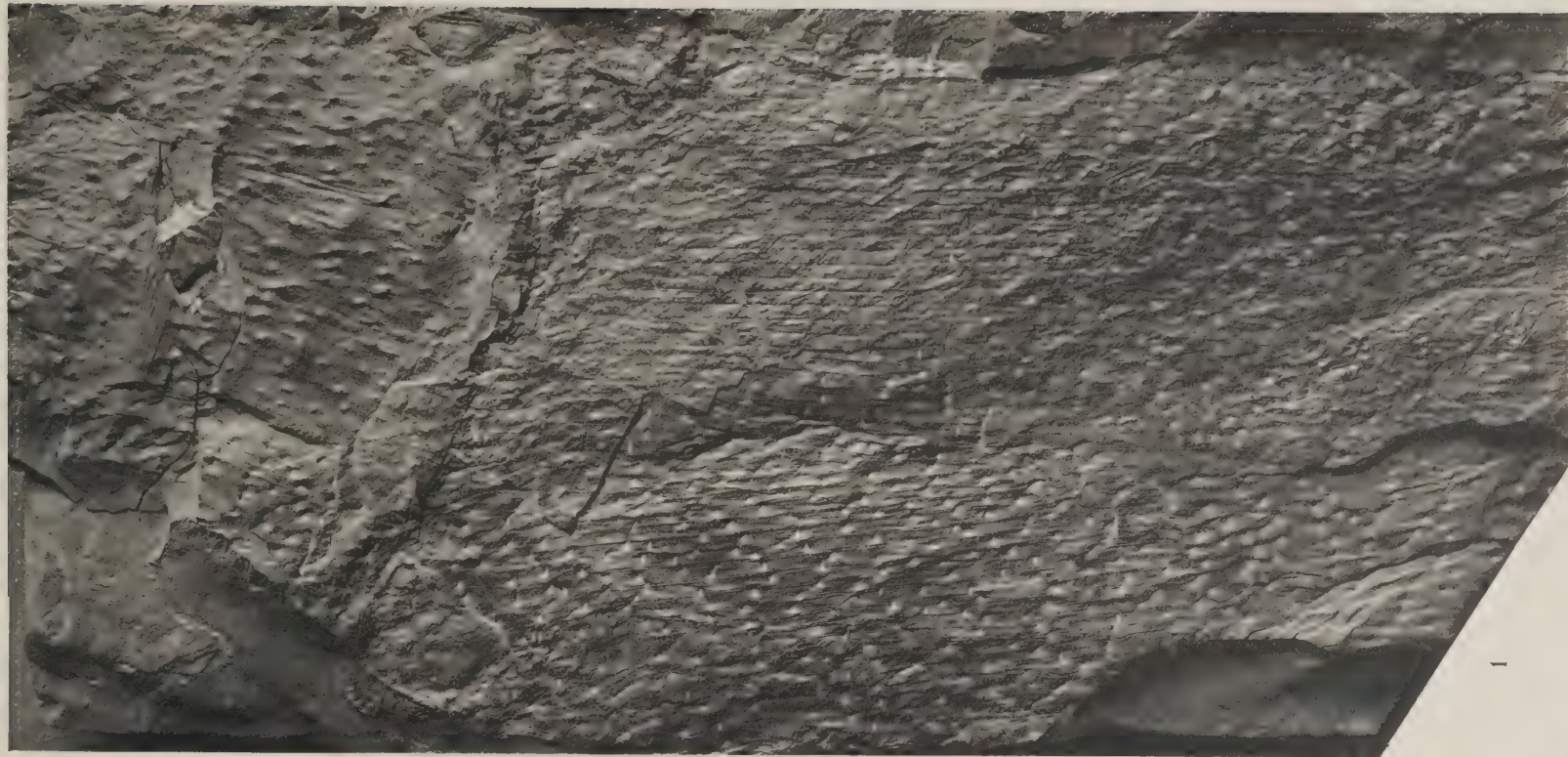






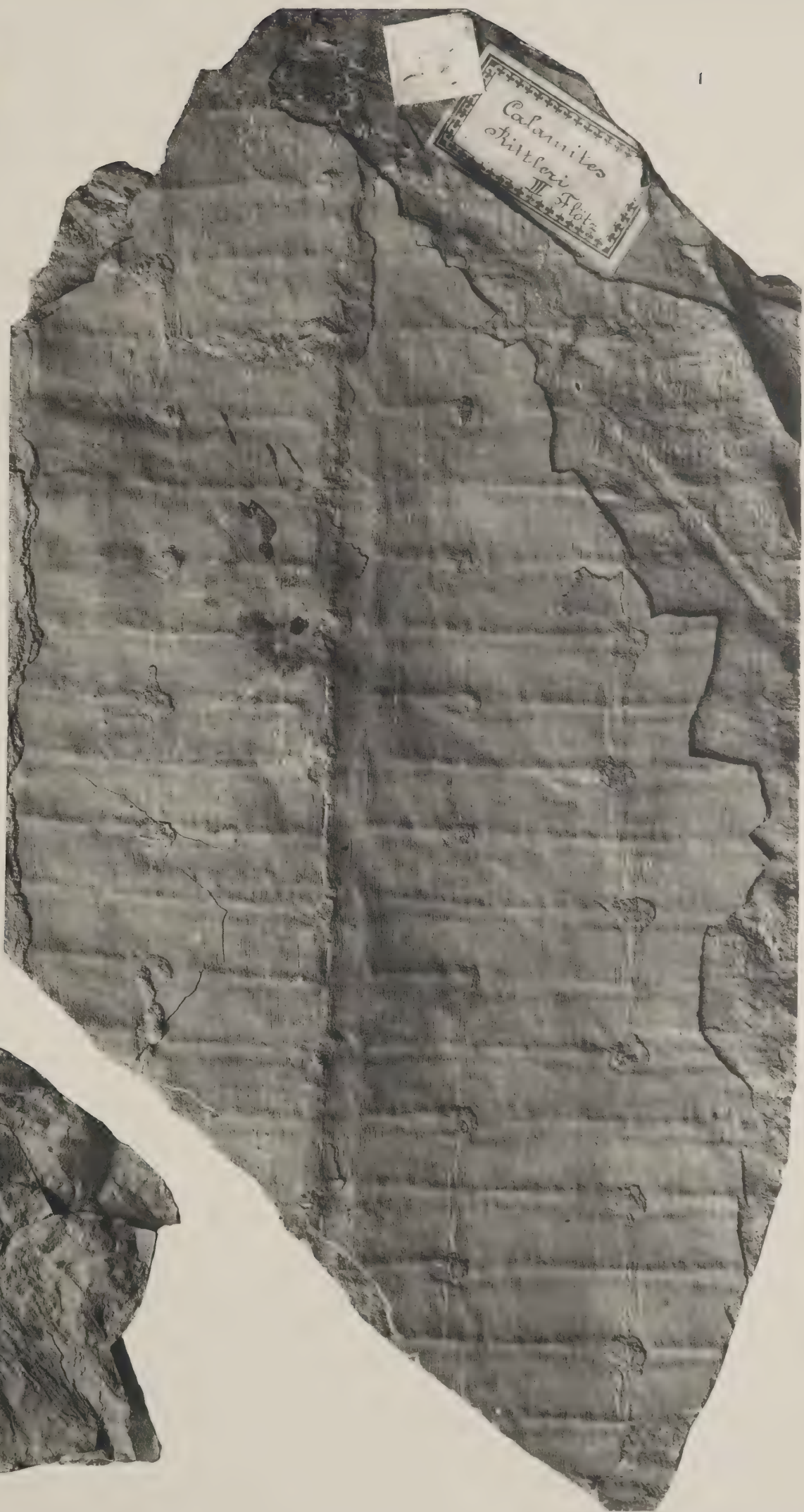






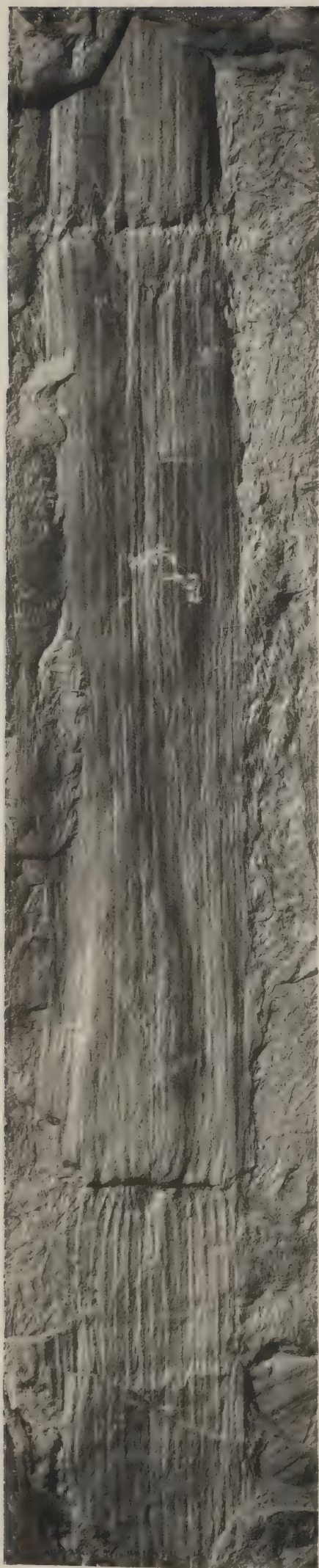




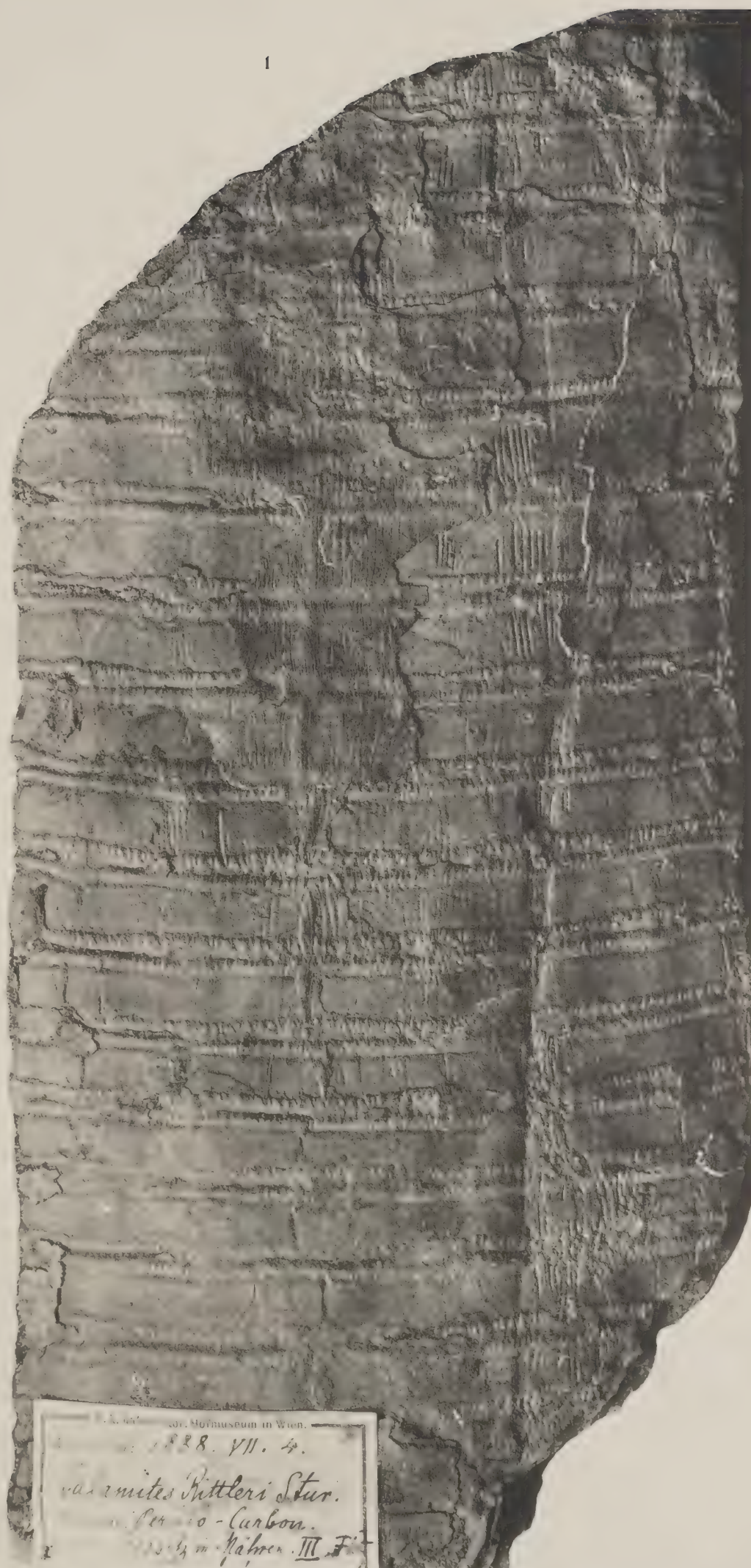








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Mus. Nat. Hist. Wien.  
 1888. VII. 4.  
*Paranites Kittleri* Stur.  
 Permo-Carbon.  
 1888. III. F.



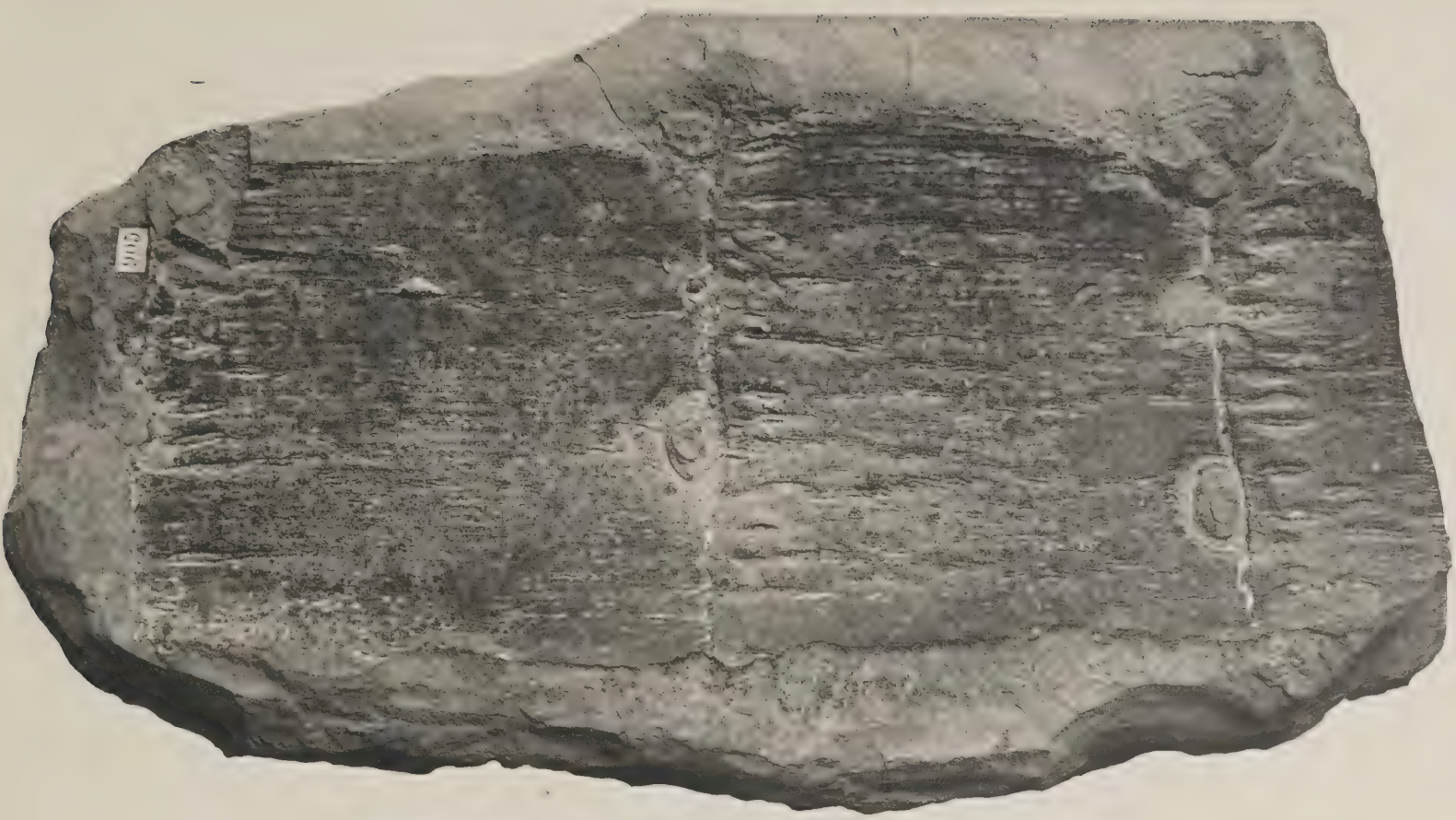
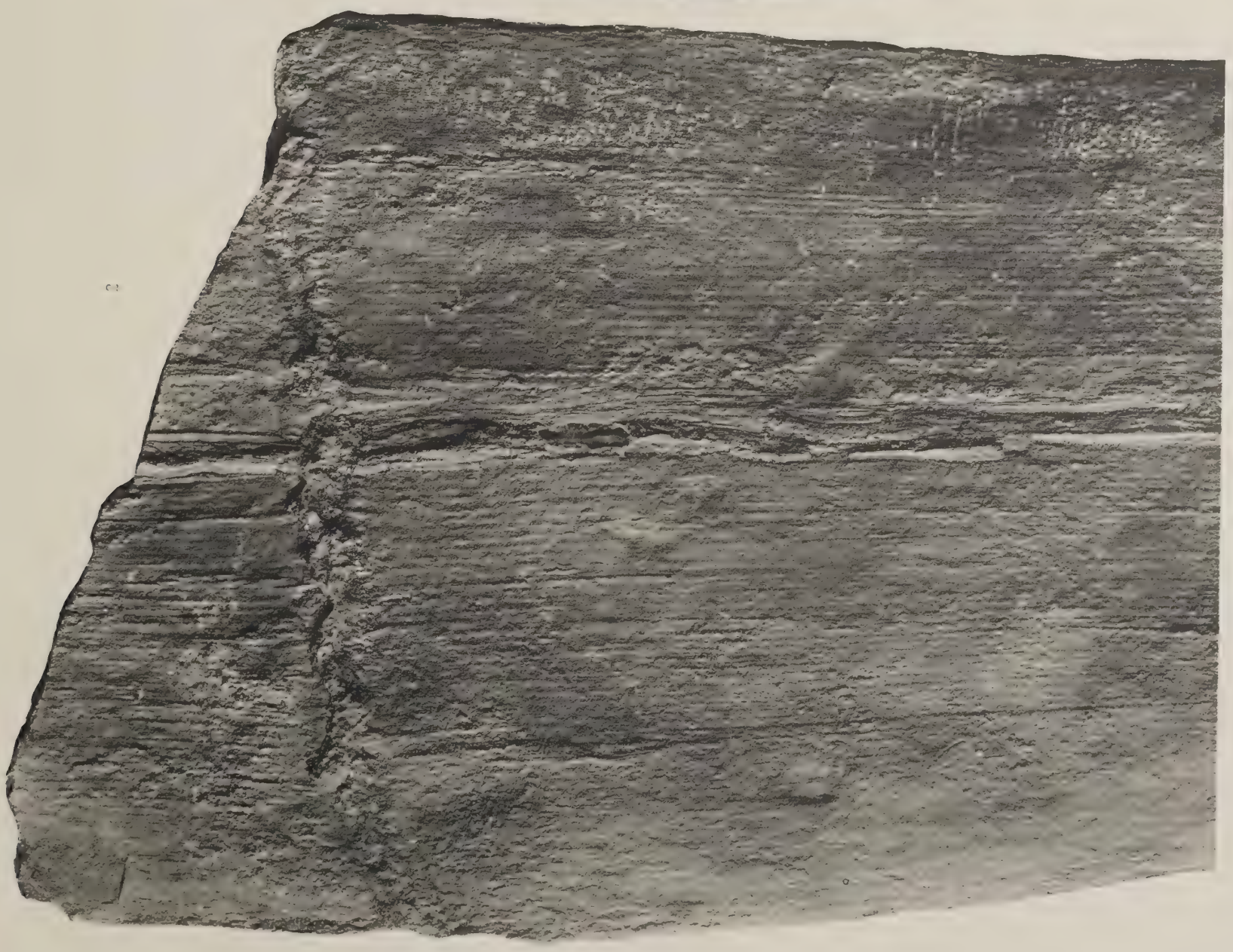






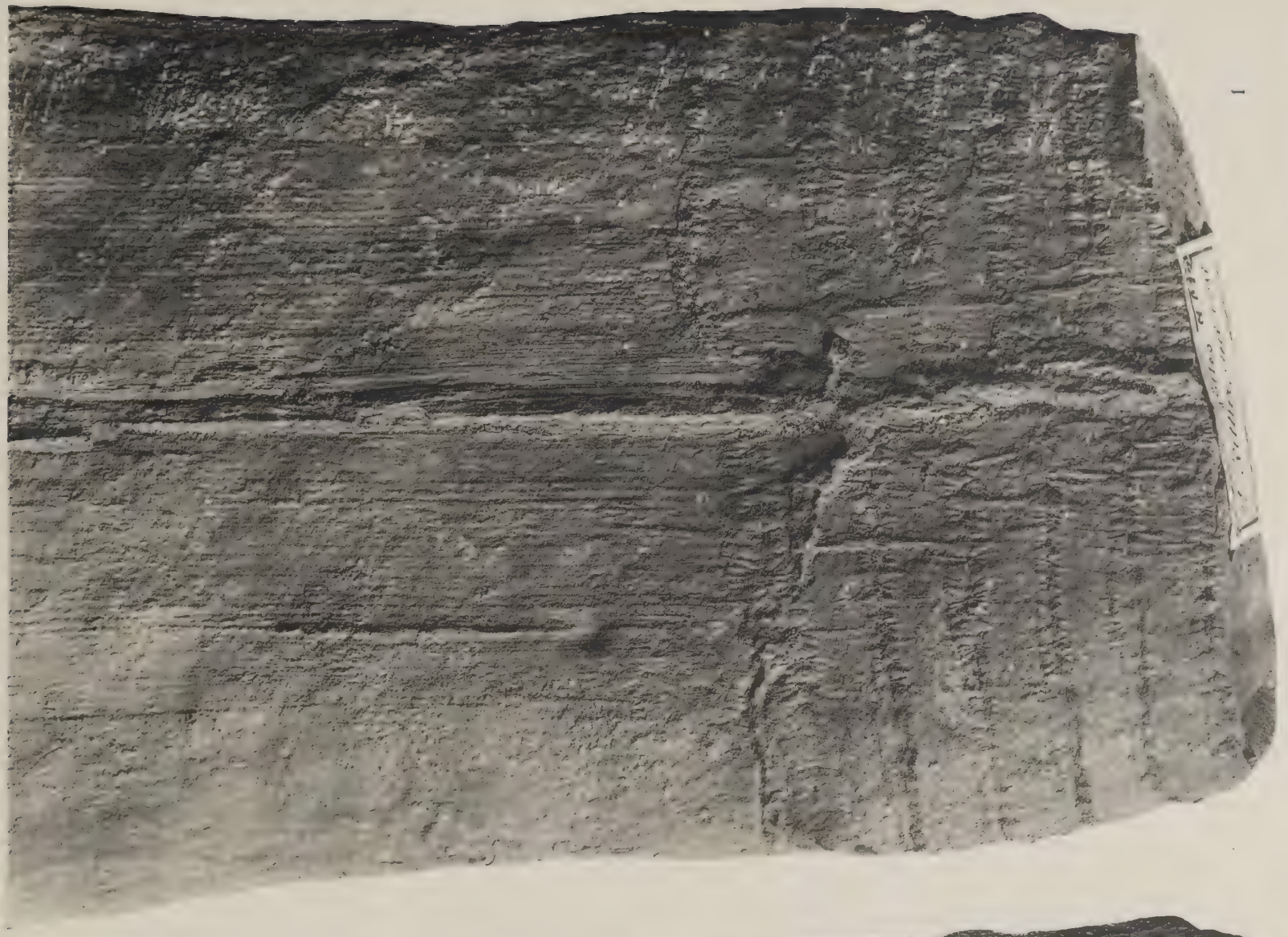




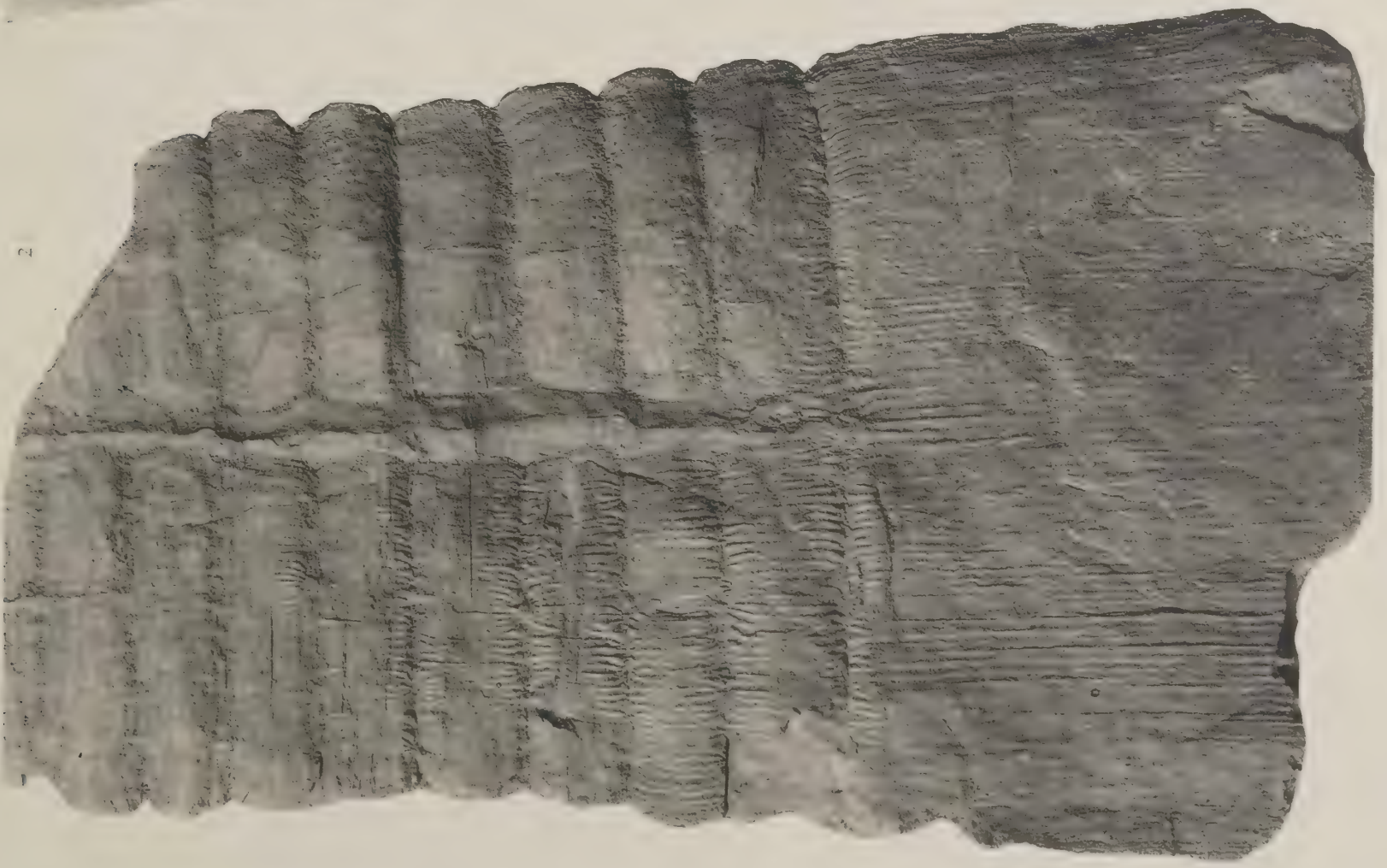








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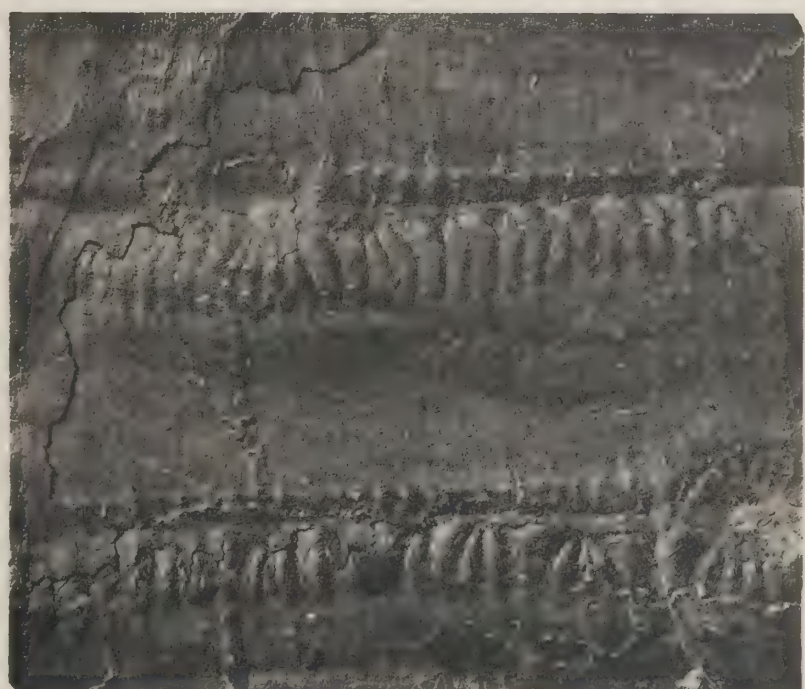








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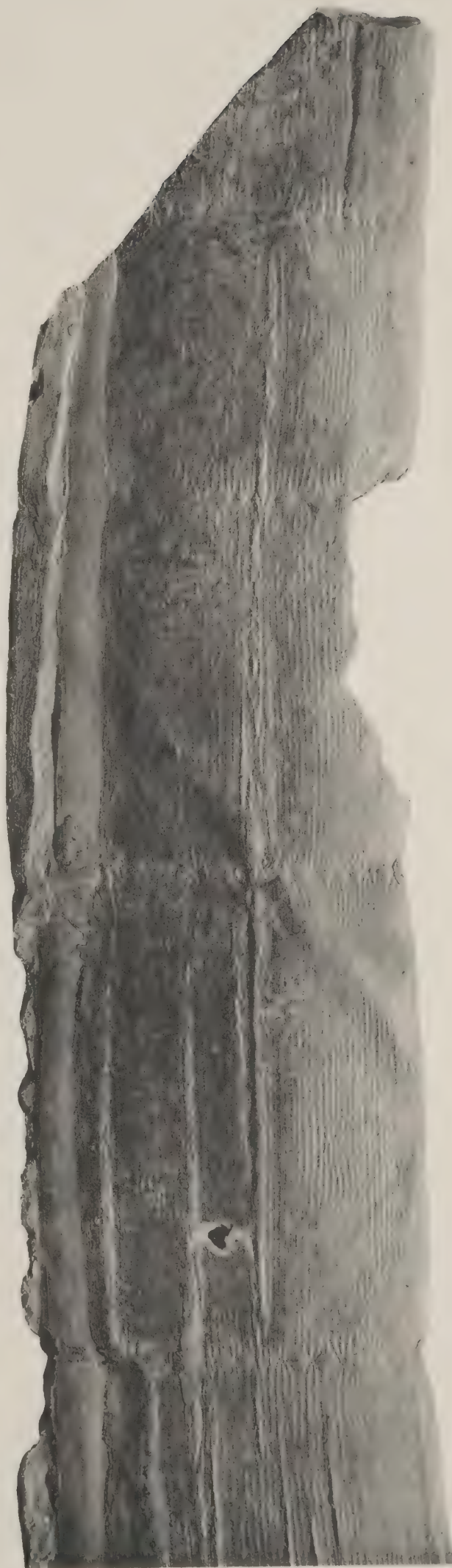




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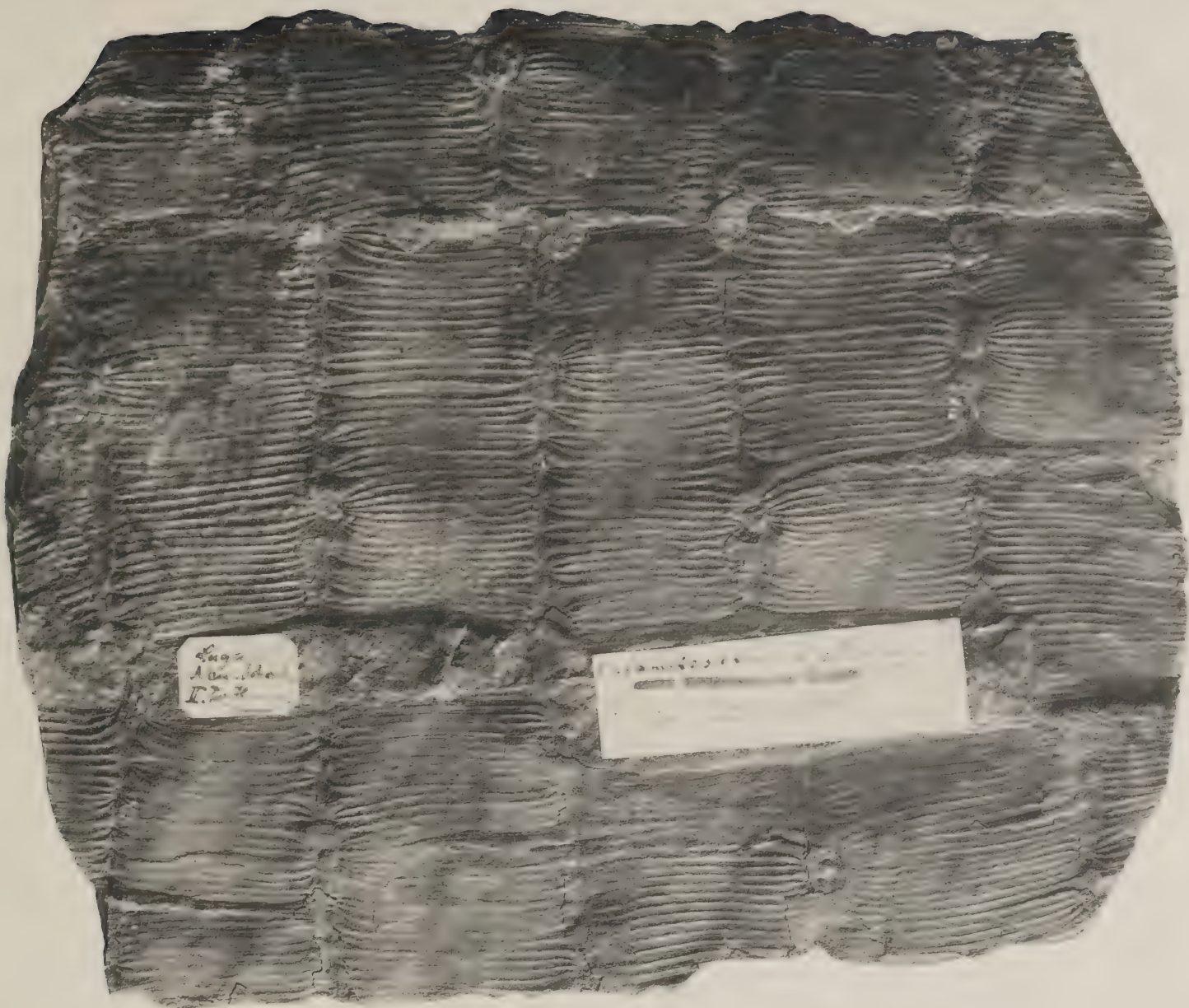
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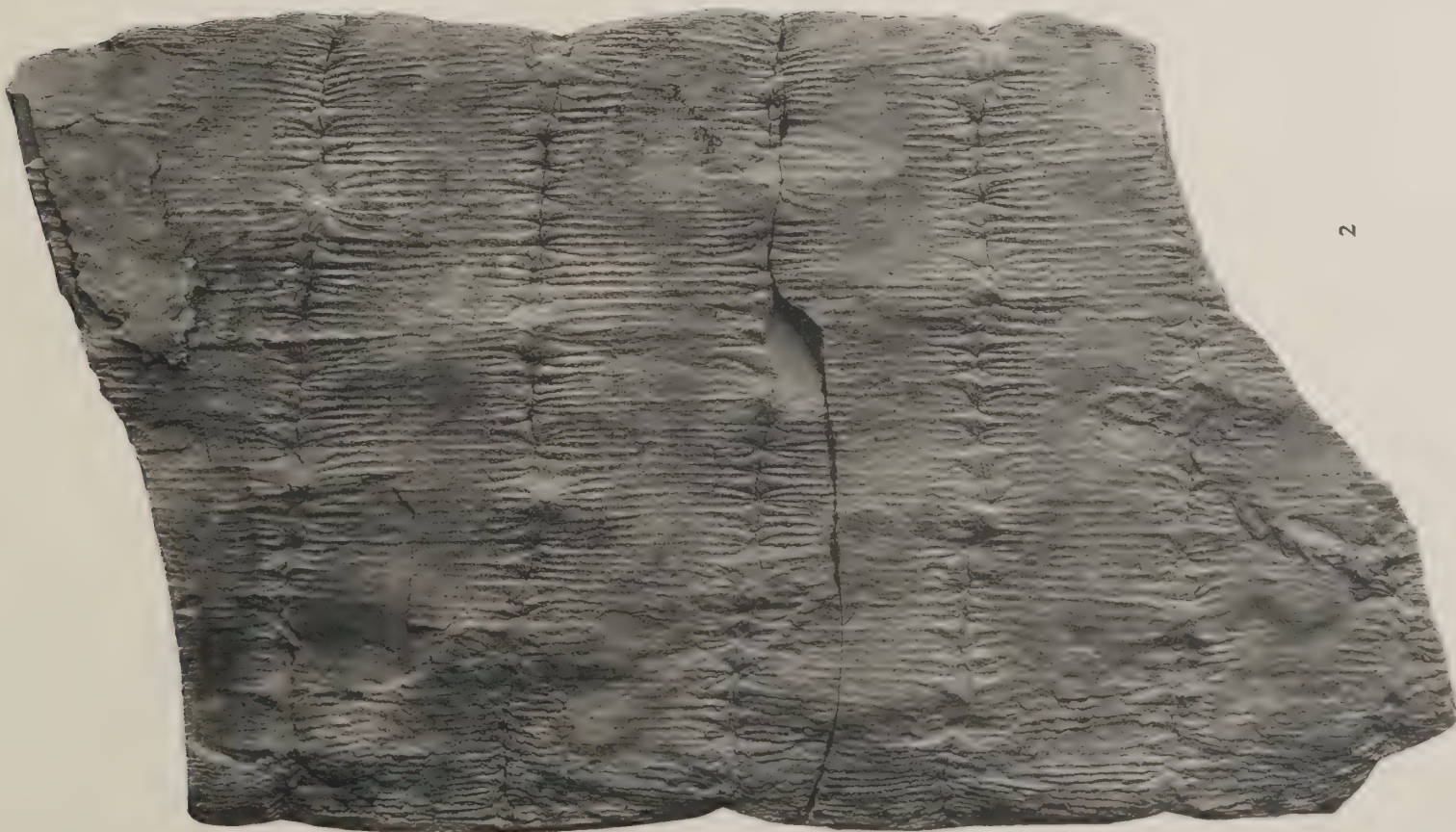




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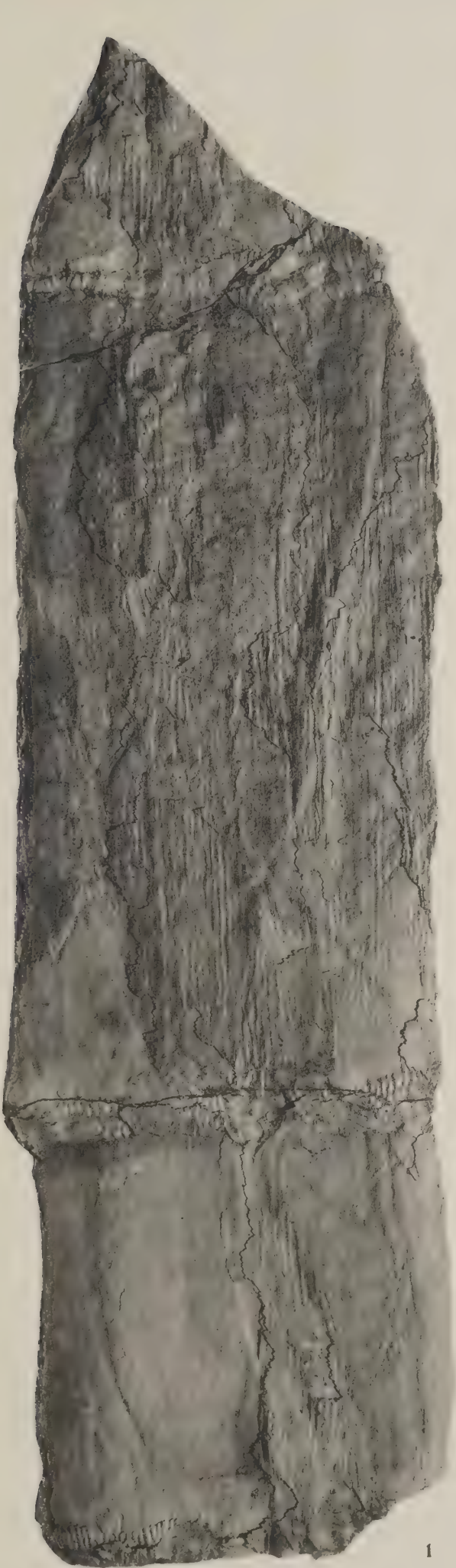


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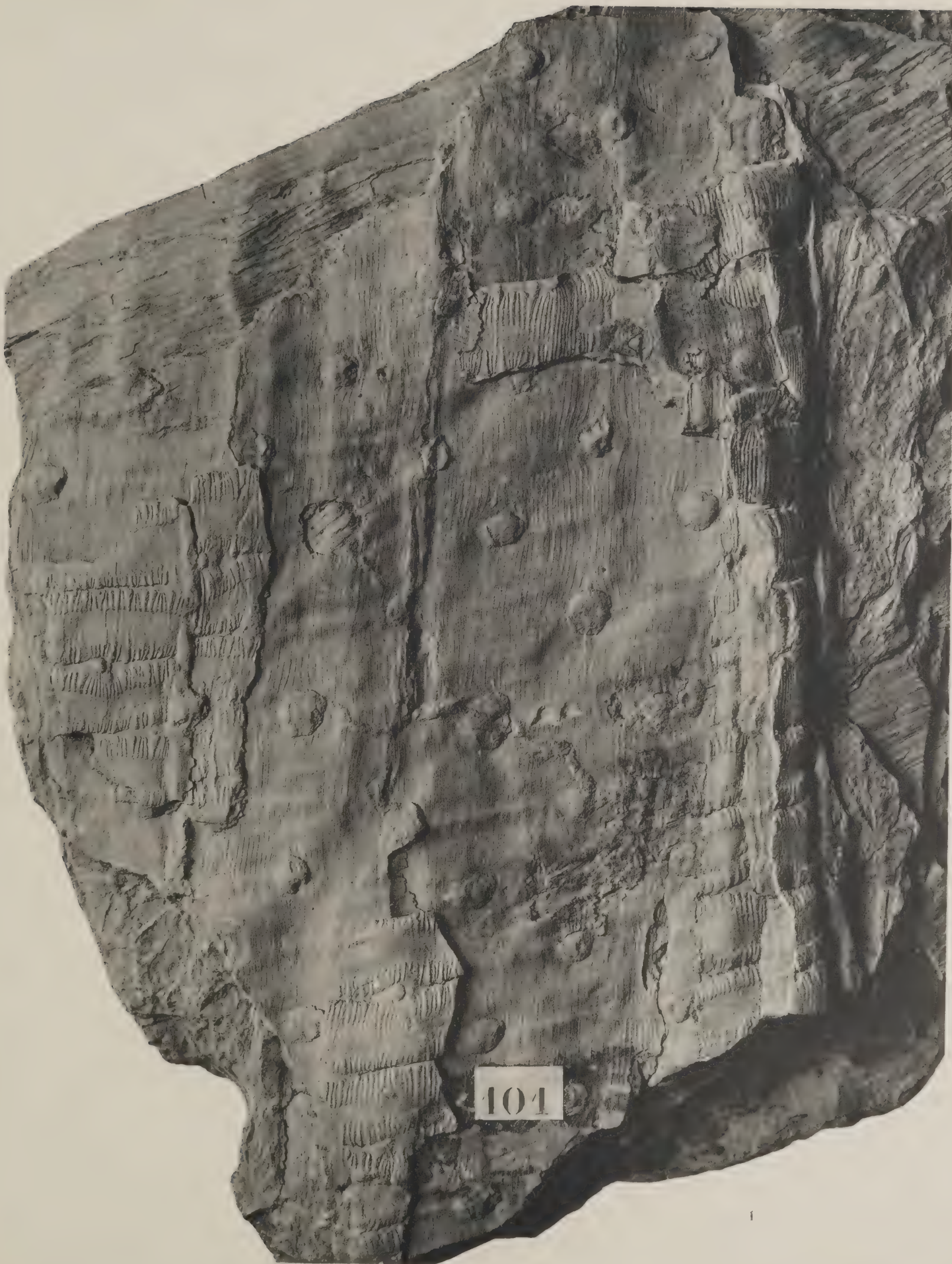


















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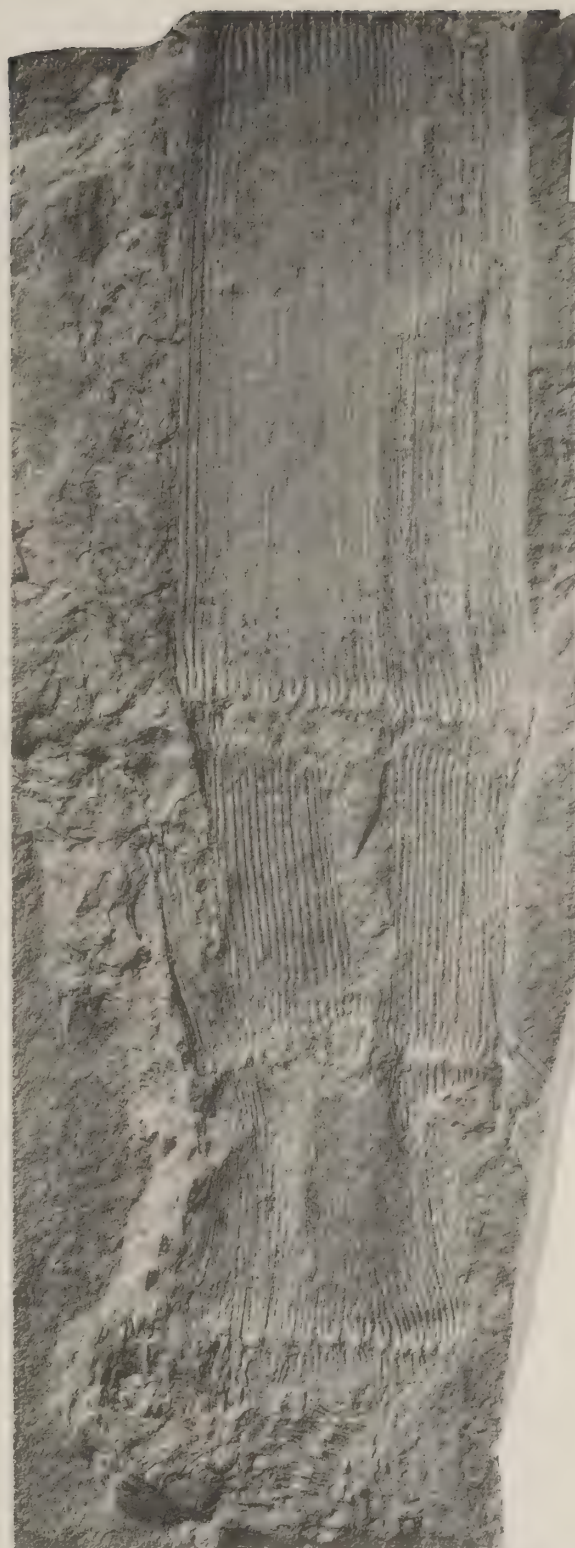
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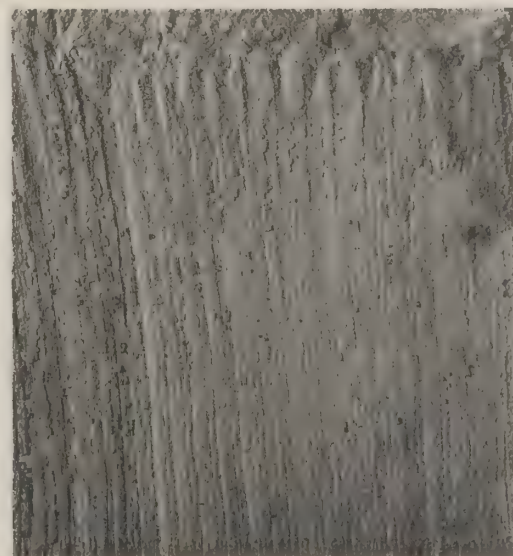


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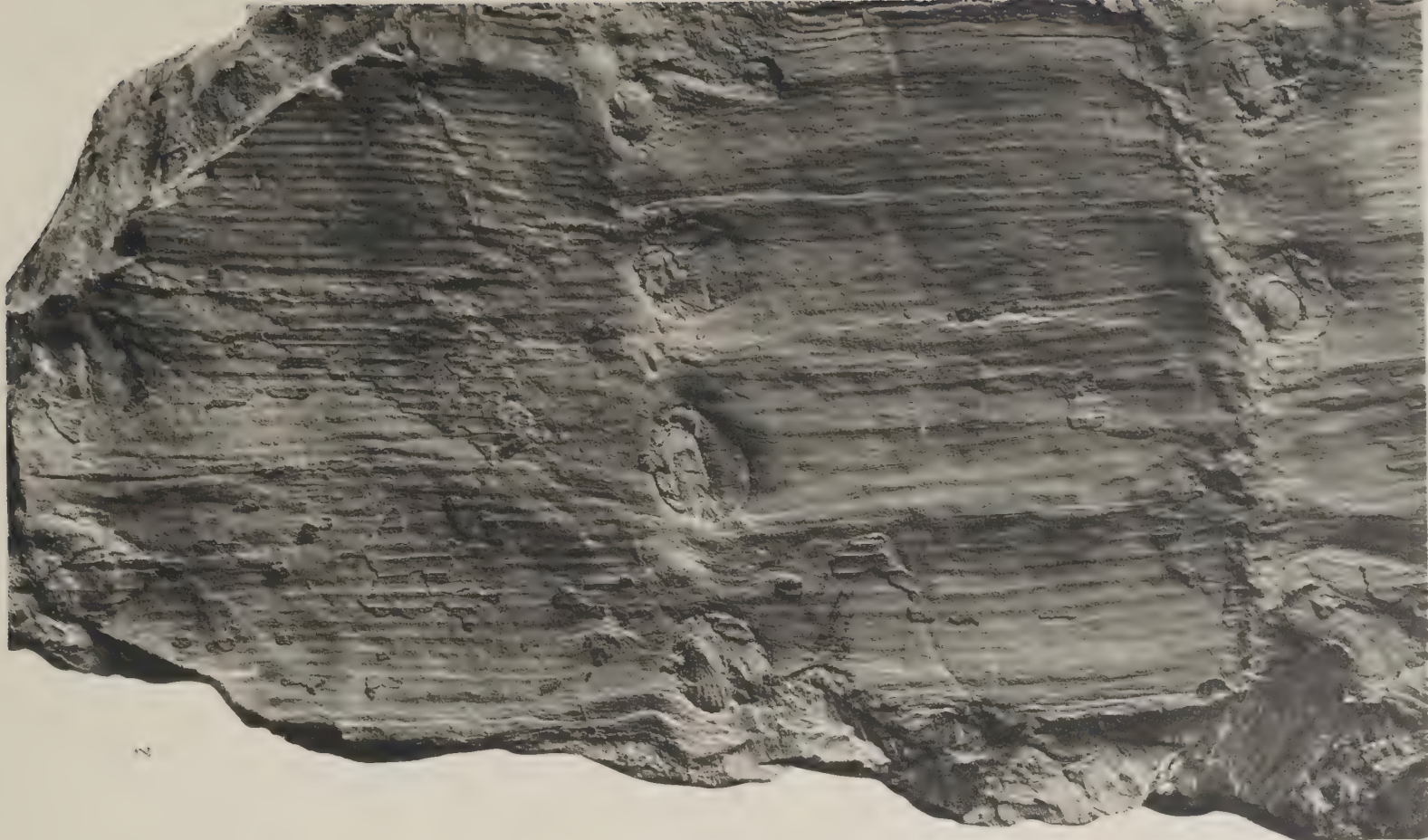
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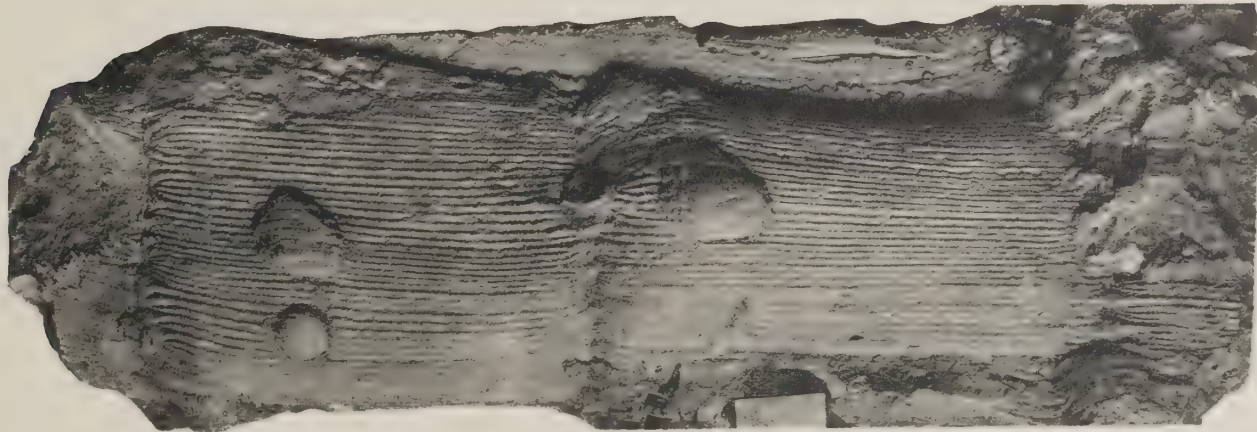








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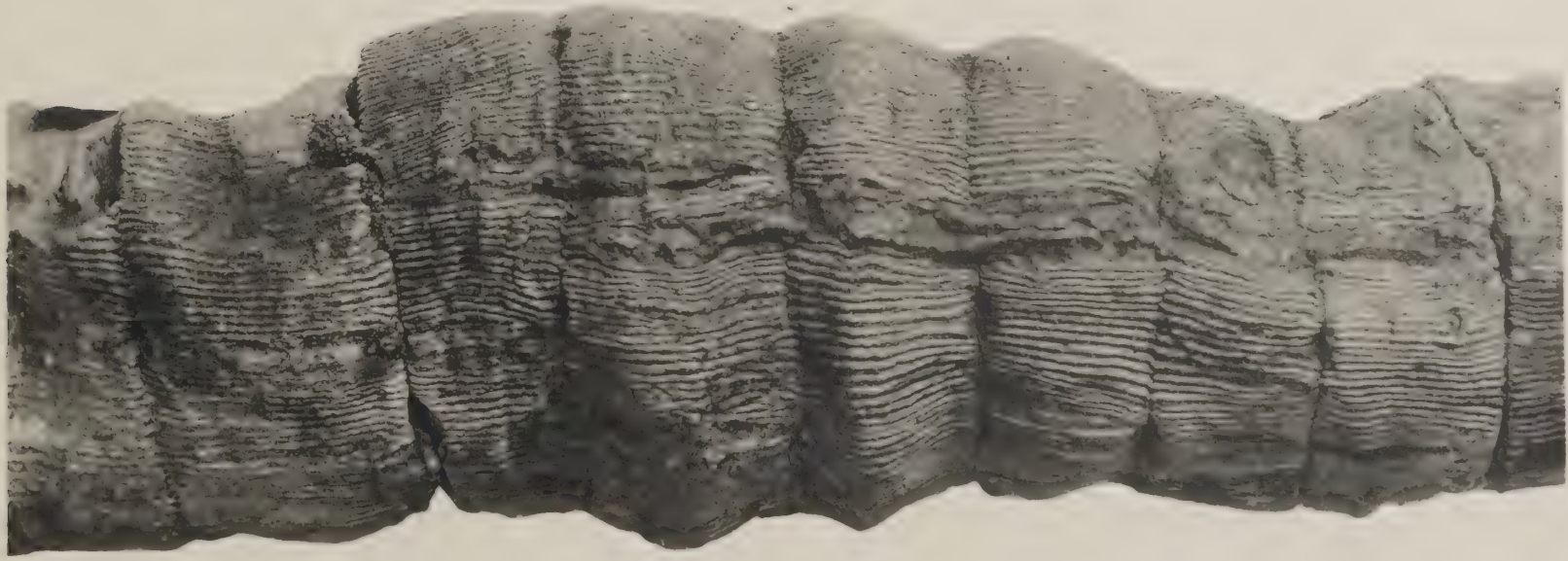
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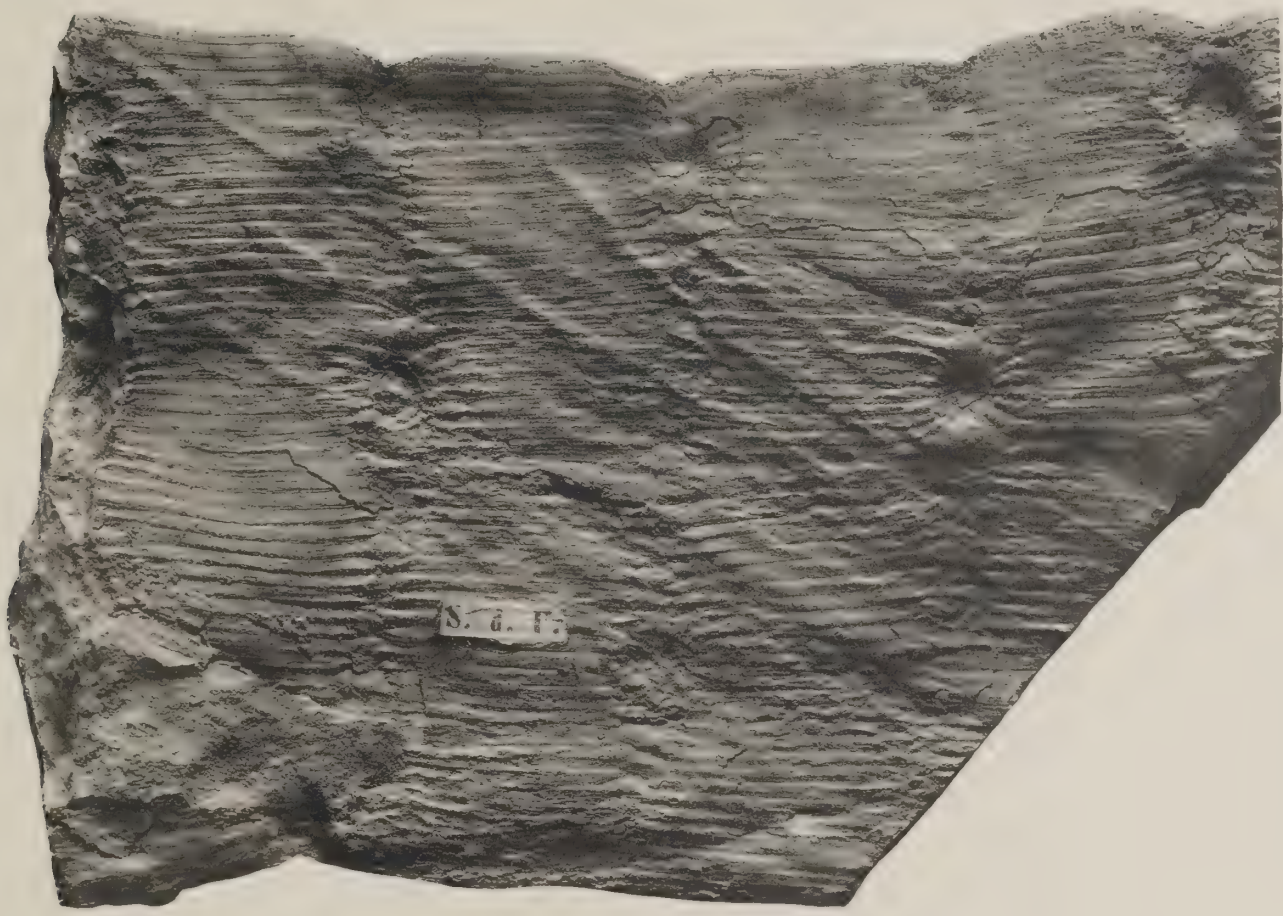
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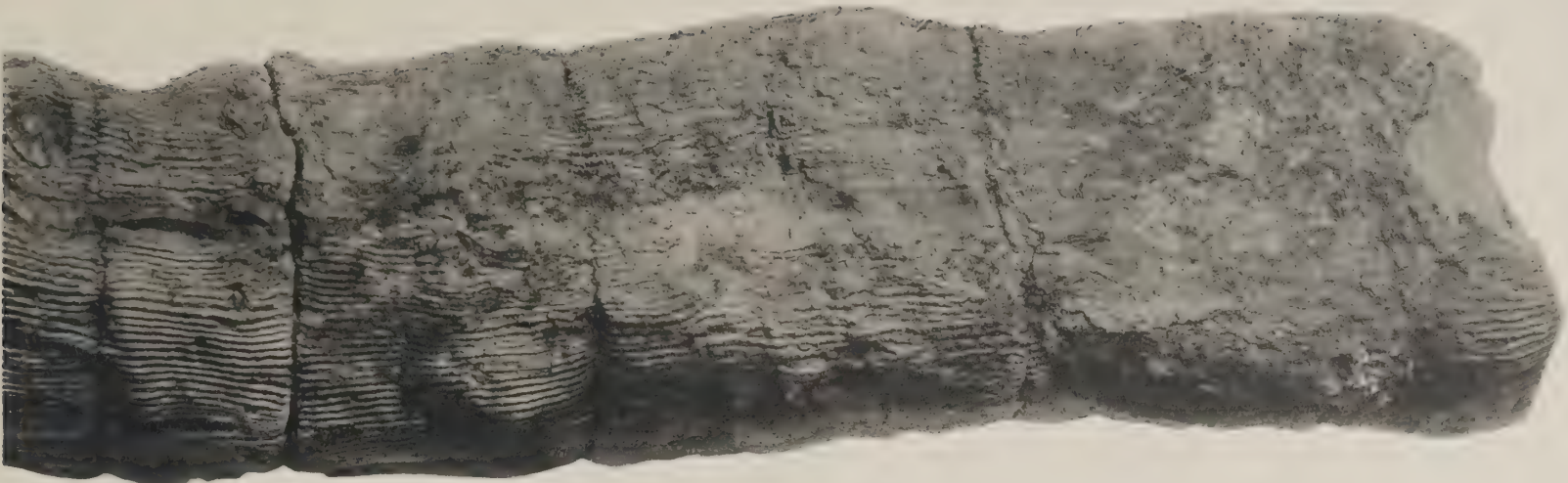




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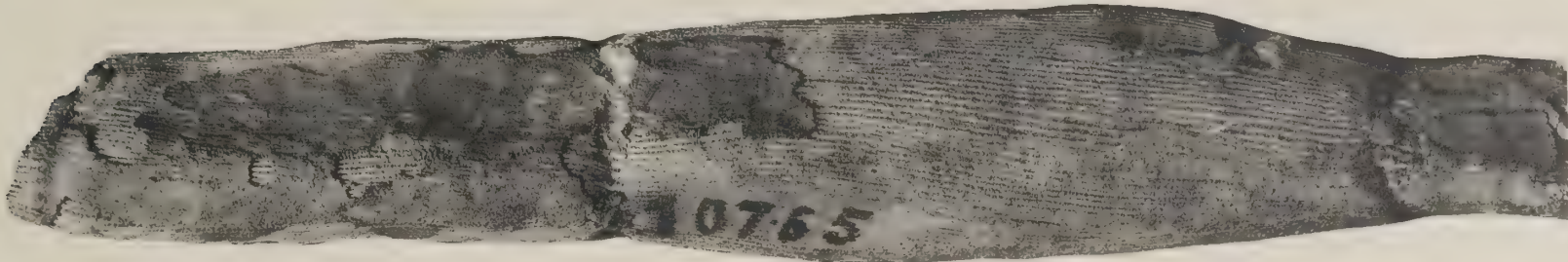




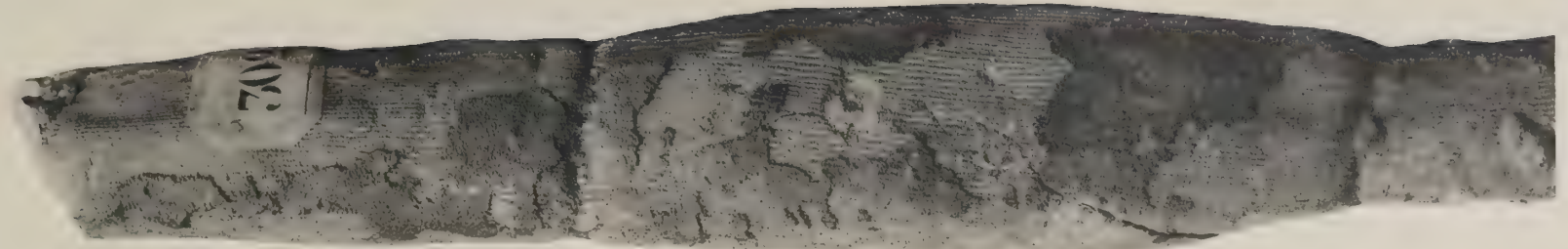
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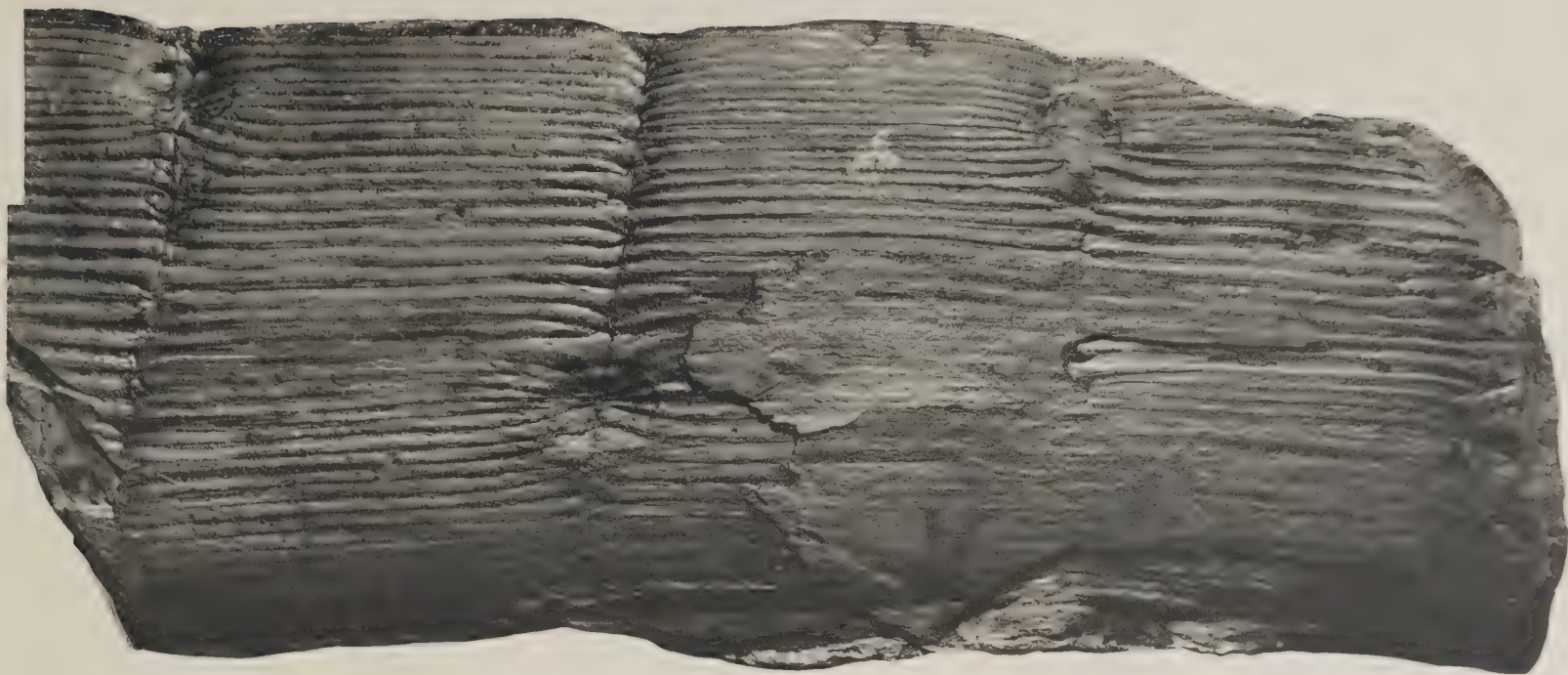


Phototype L. van Leer & Co.

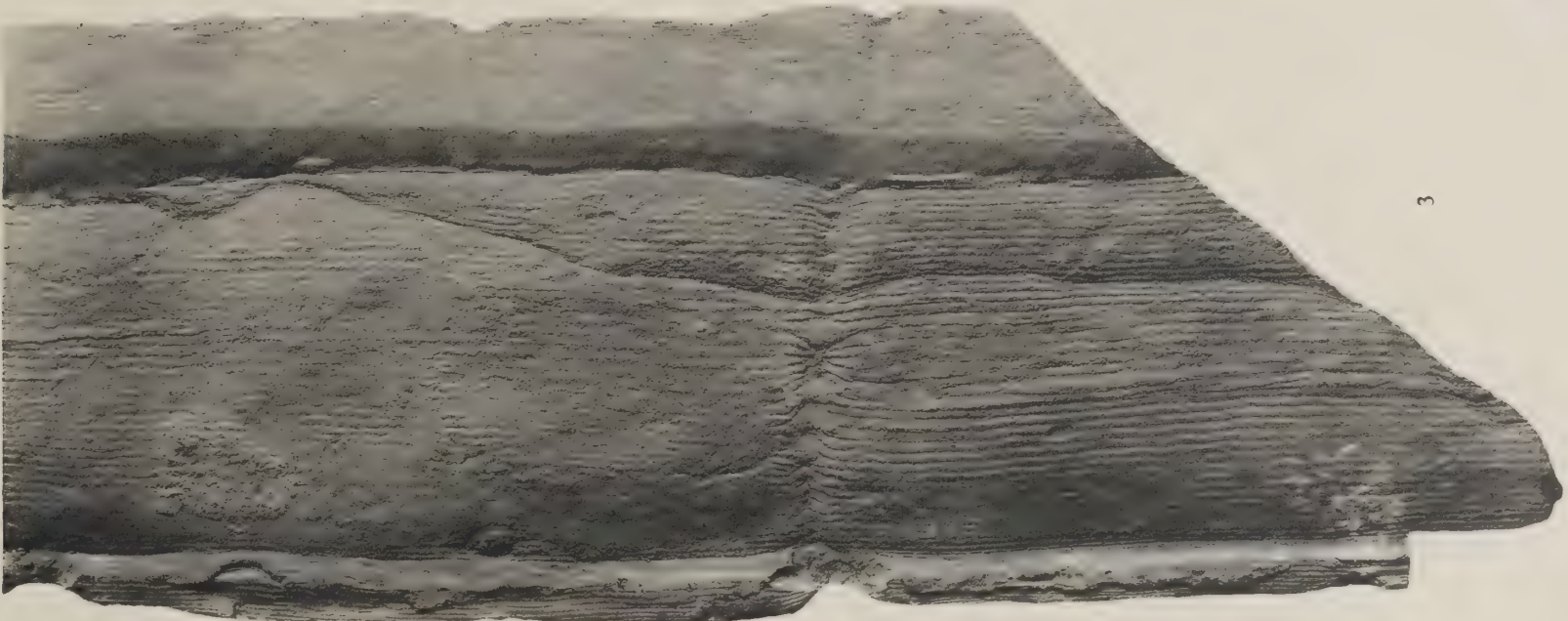
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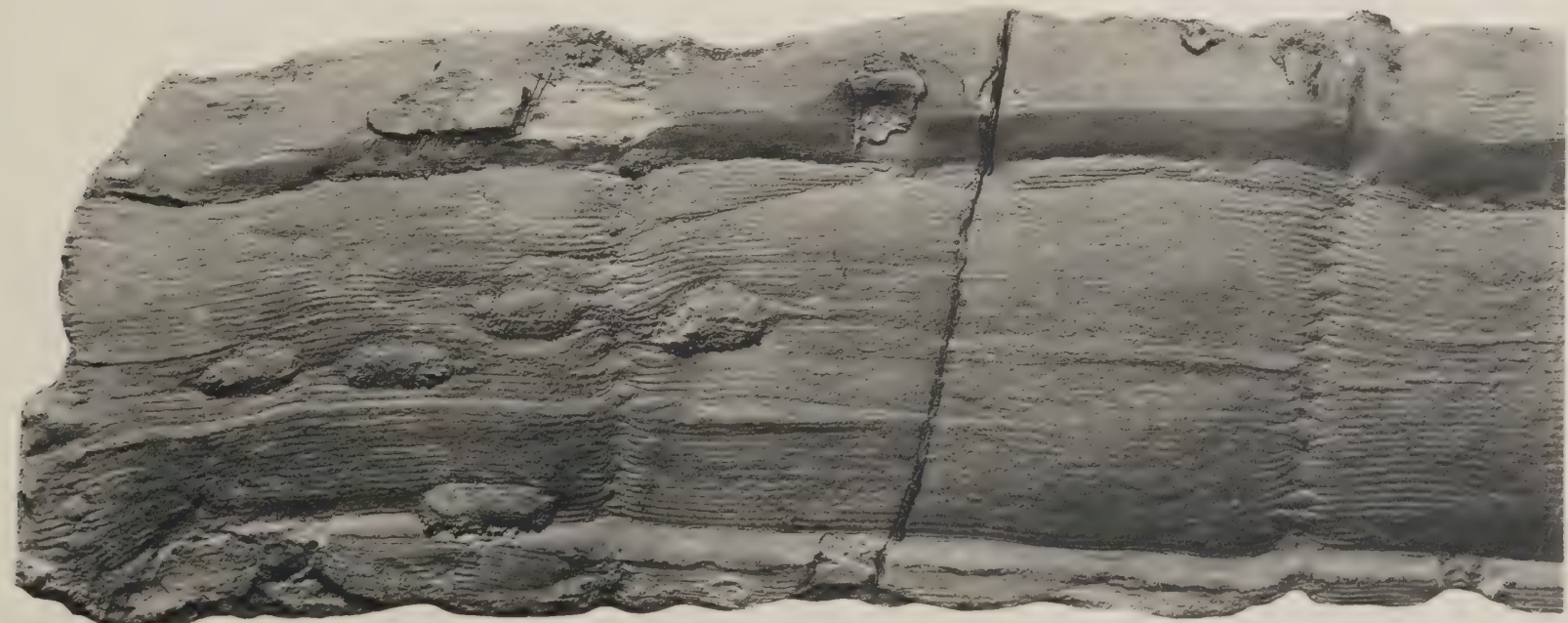




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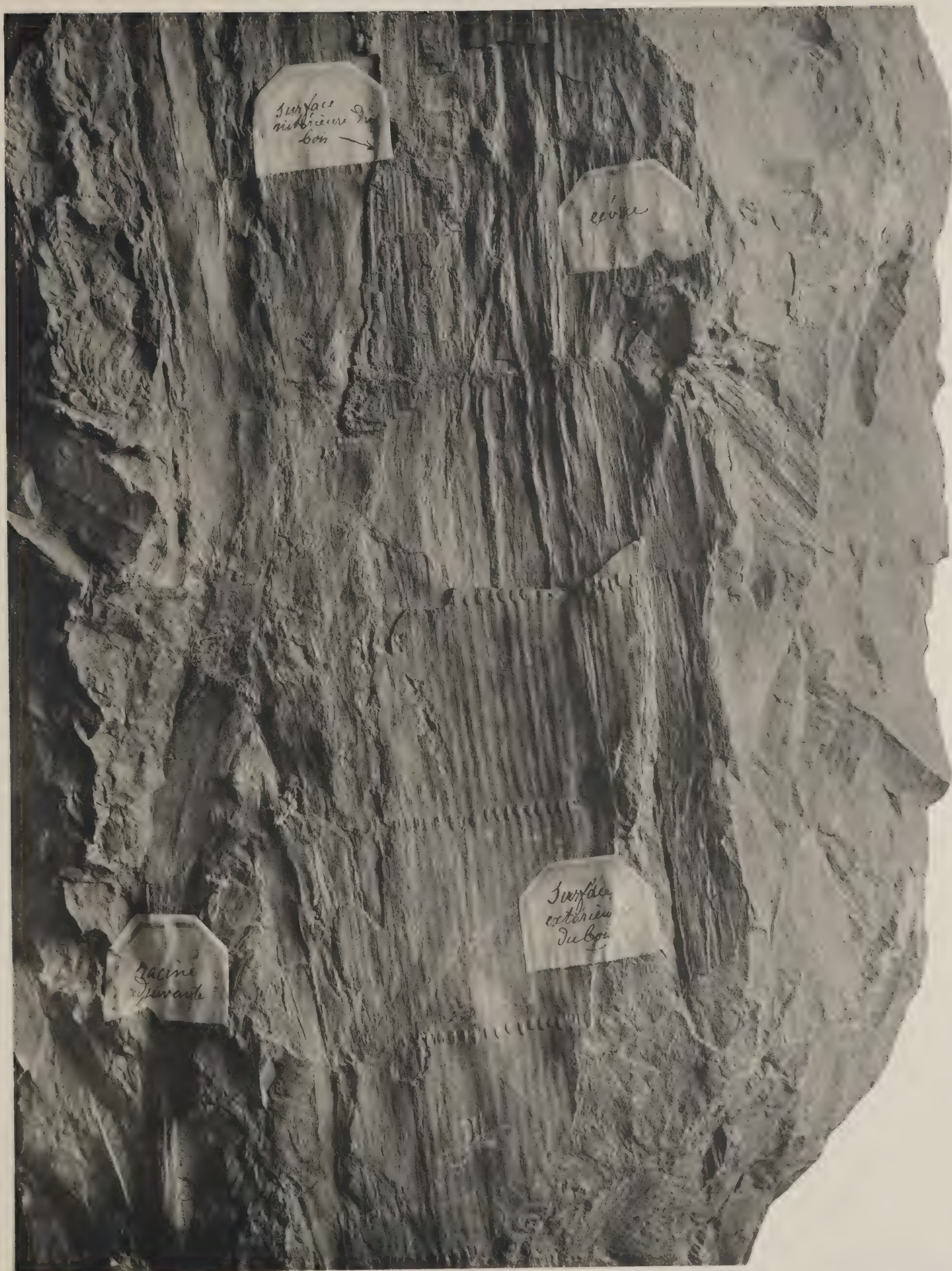
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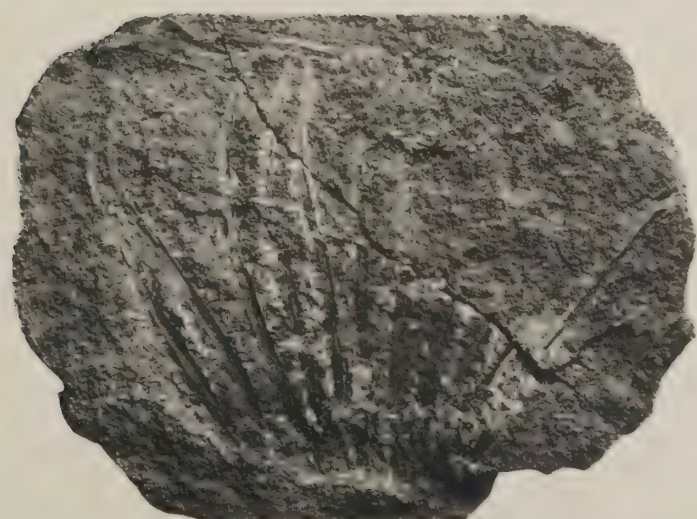
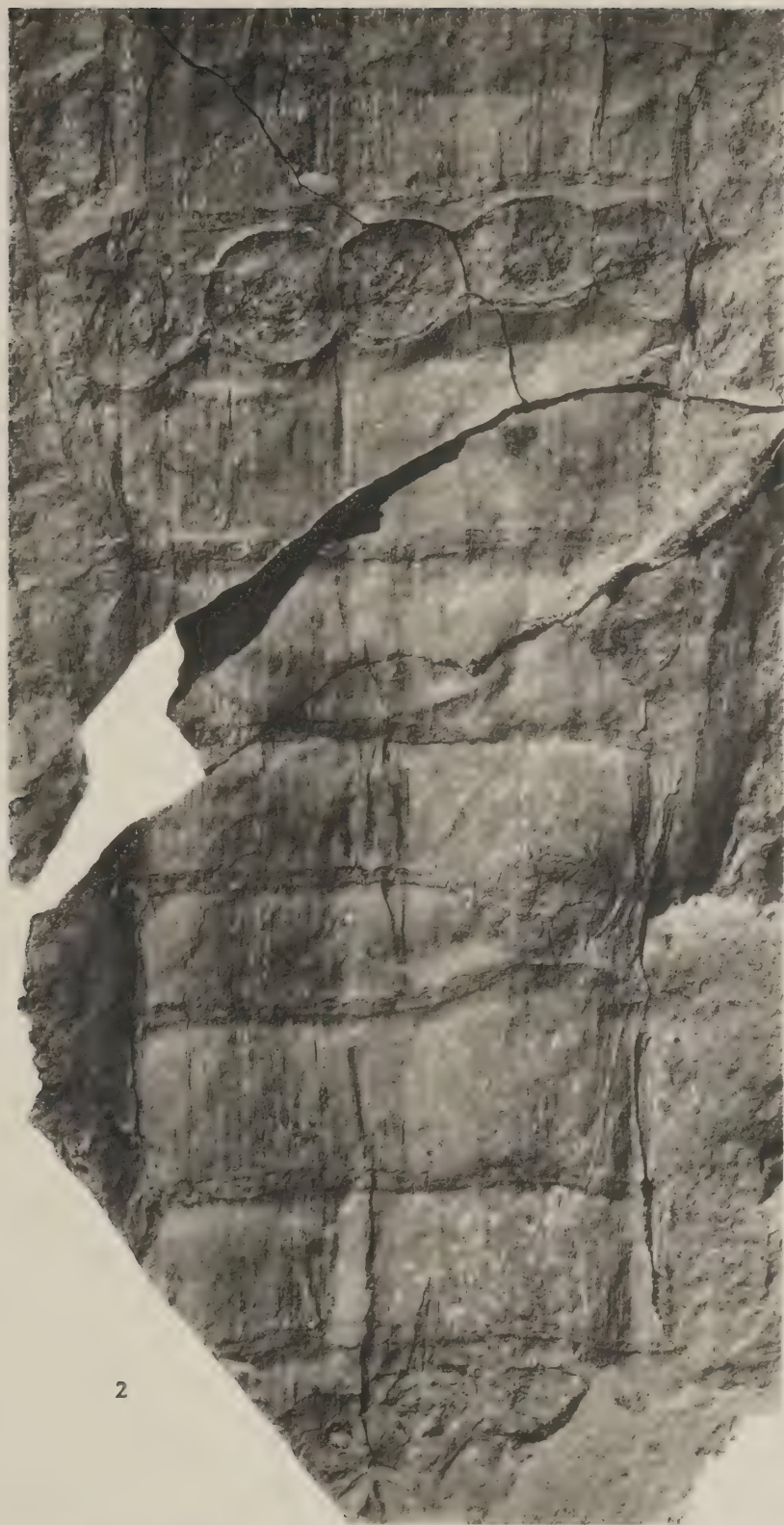










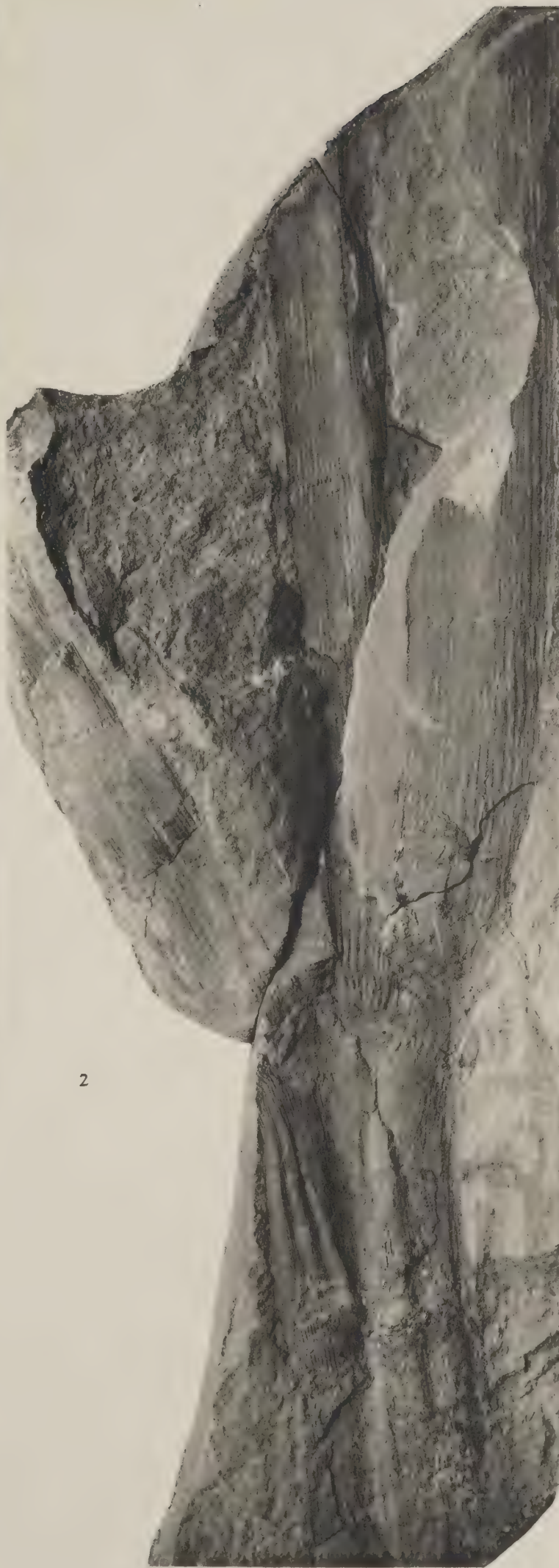




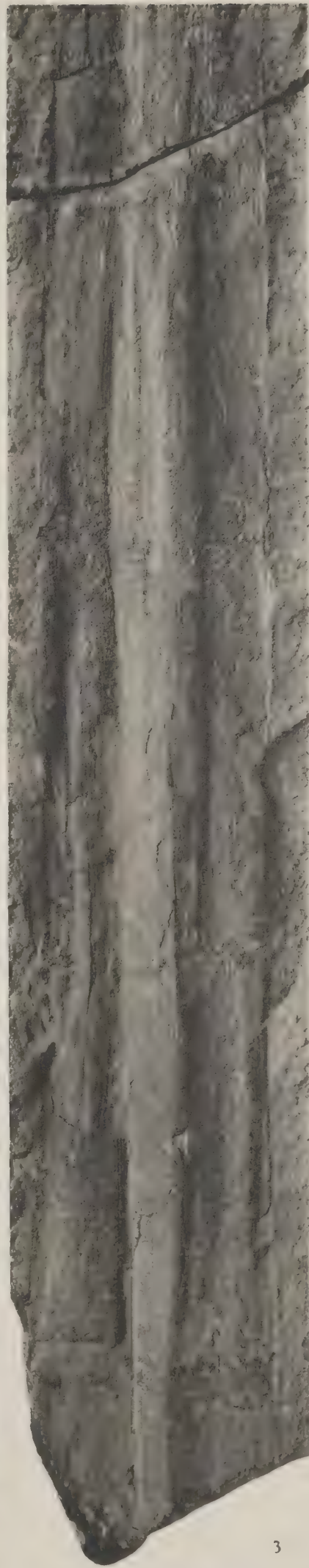




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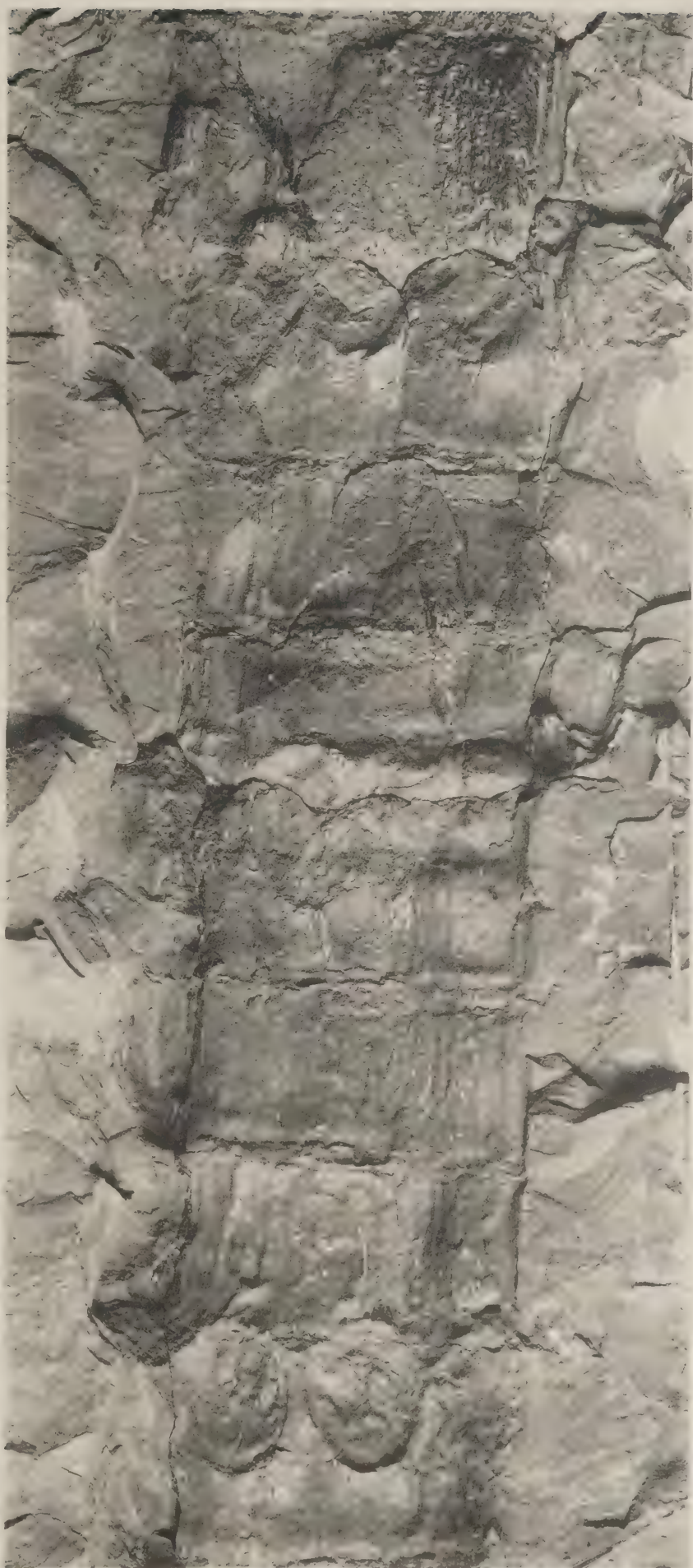






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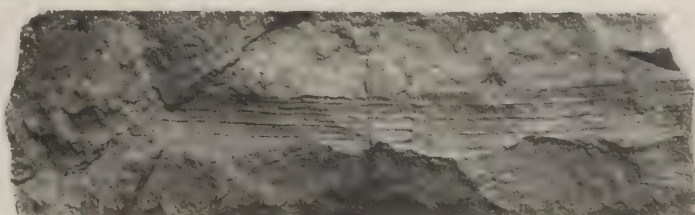
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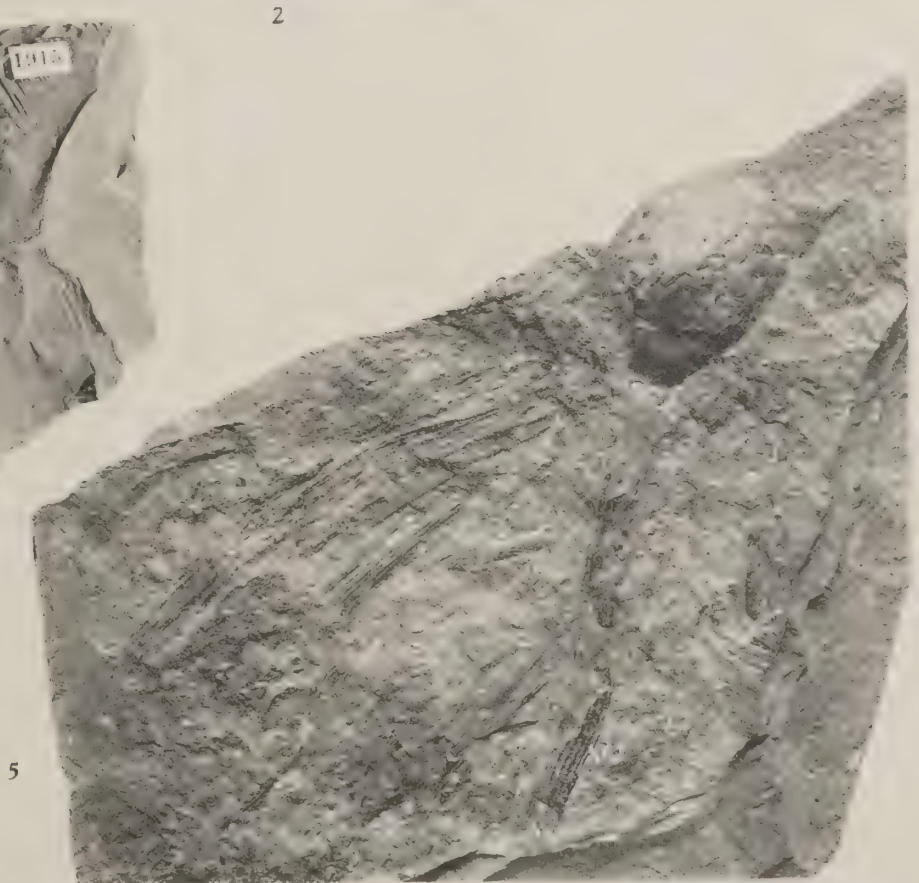


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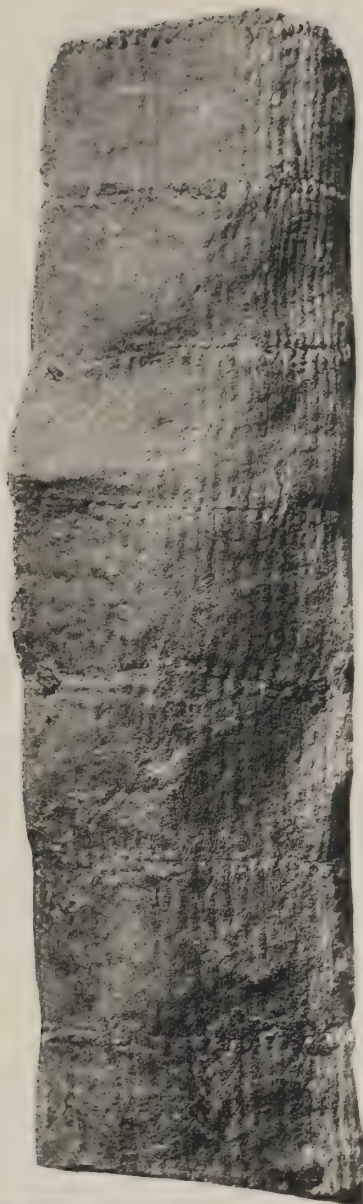


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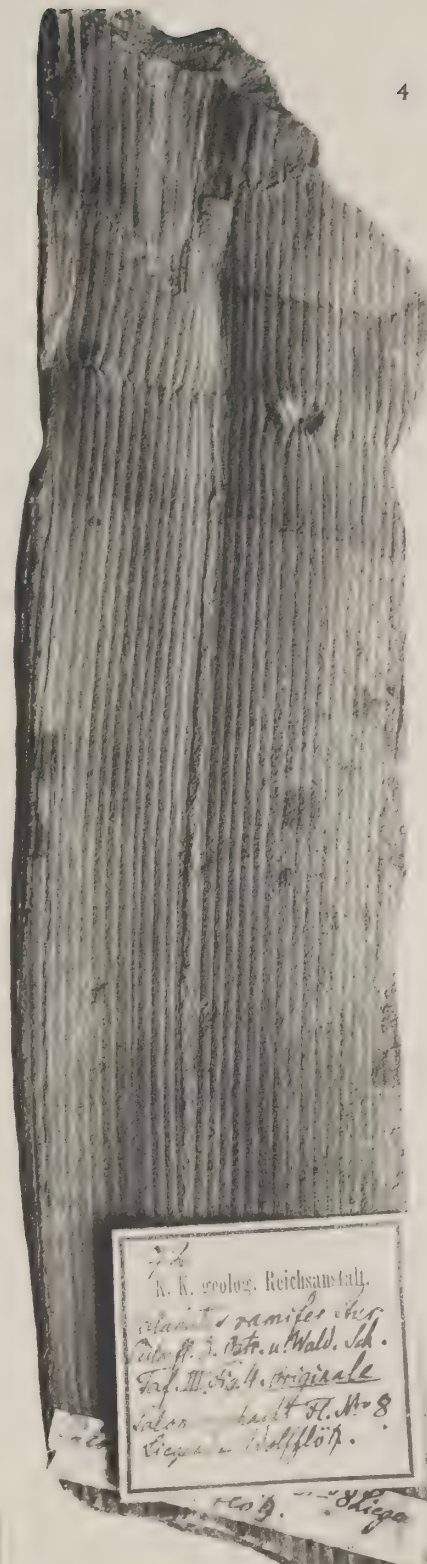
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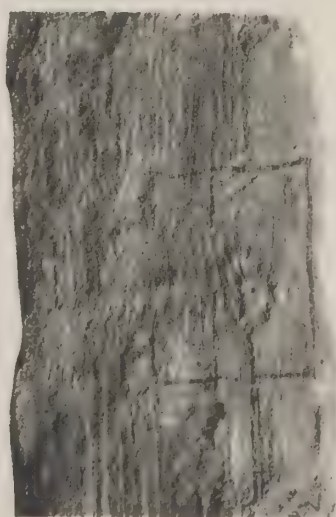


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K. K. geolog. Reichsanstalt.  
*Alant. ramifera* Sch.  
 Götting. J. Bot. u. Wald. Sch.  
 Prof. M. Sch. 4. originale  
 Götting. h. 18. 8  
 Götting. u. Wolfenbüttel.

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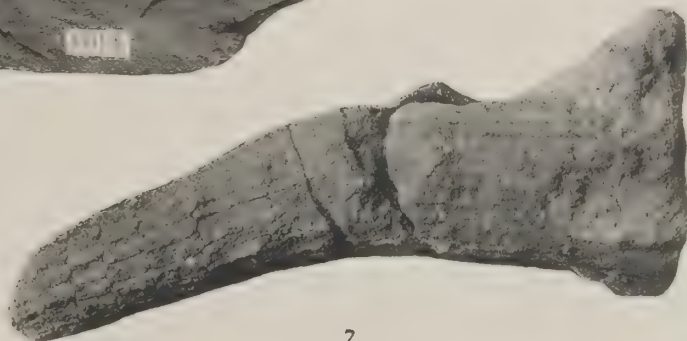
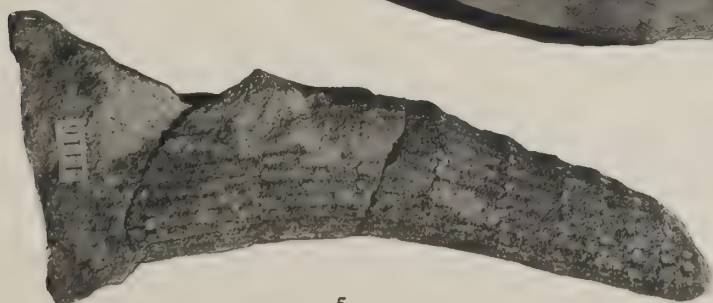
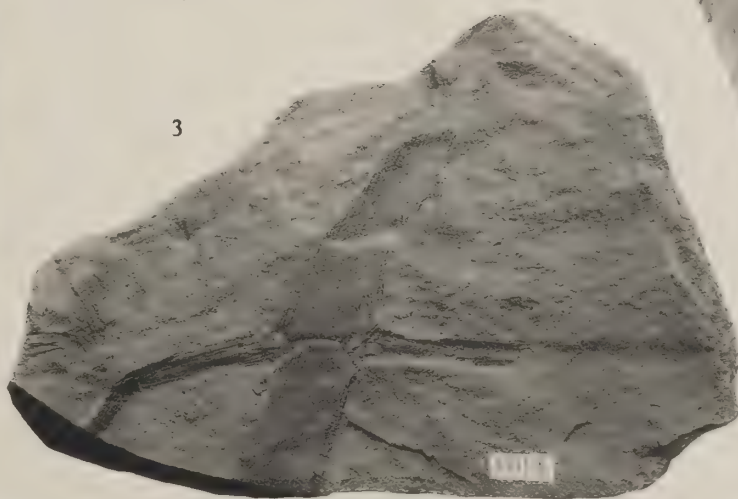
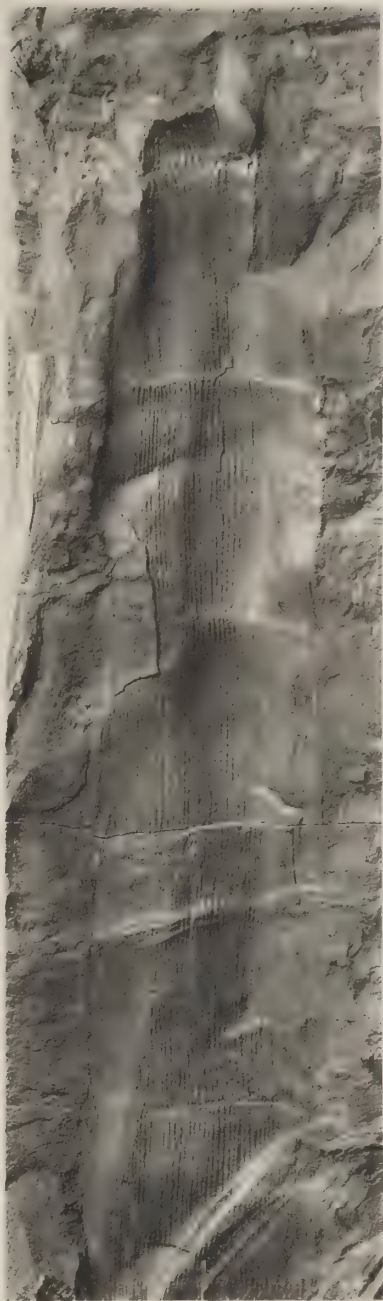
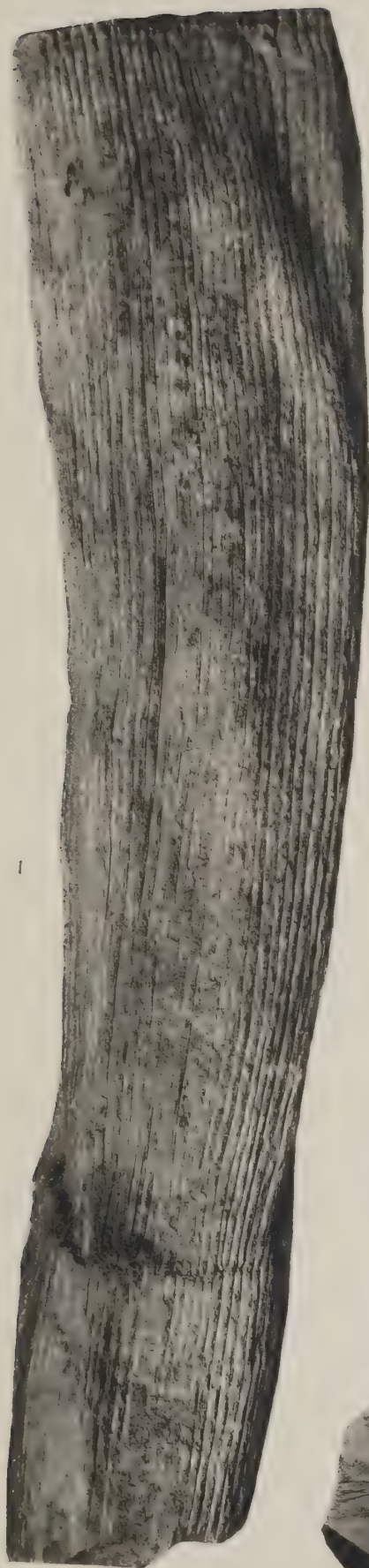


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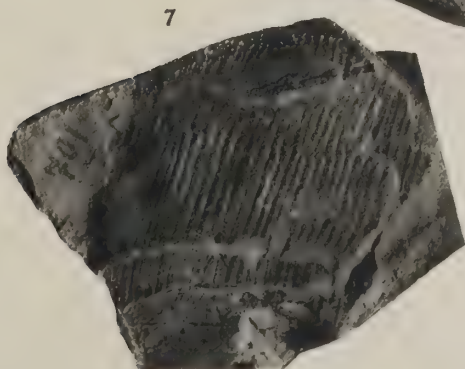
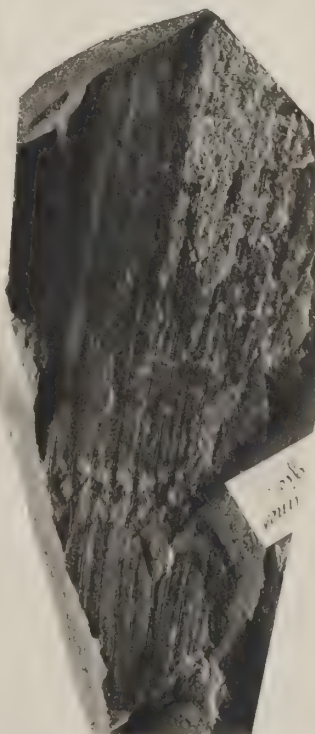
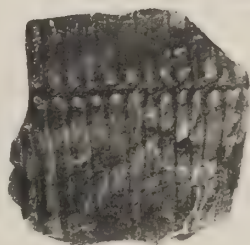
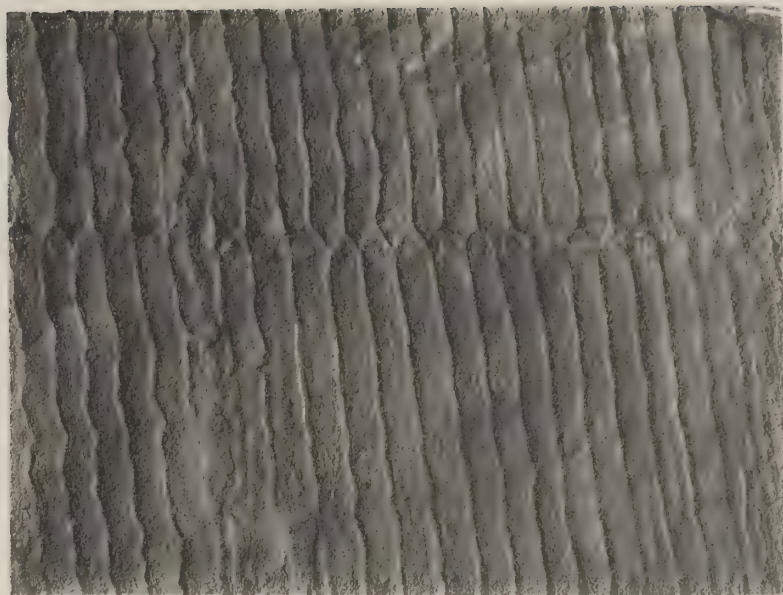












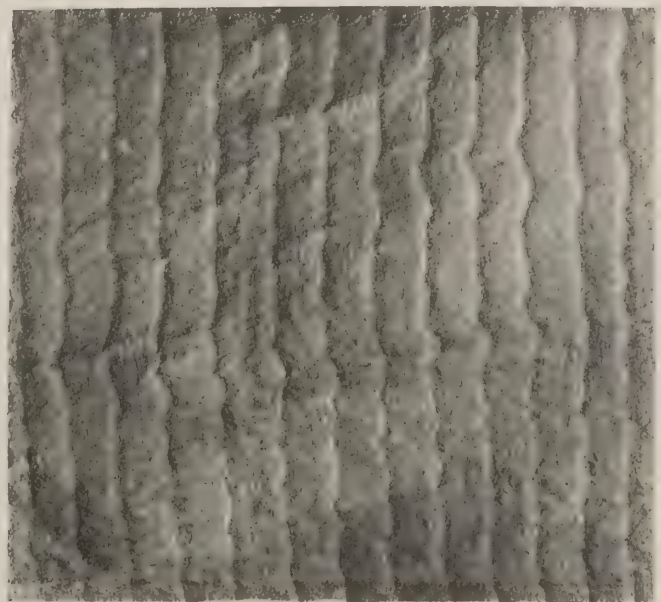
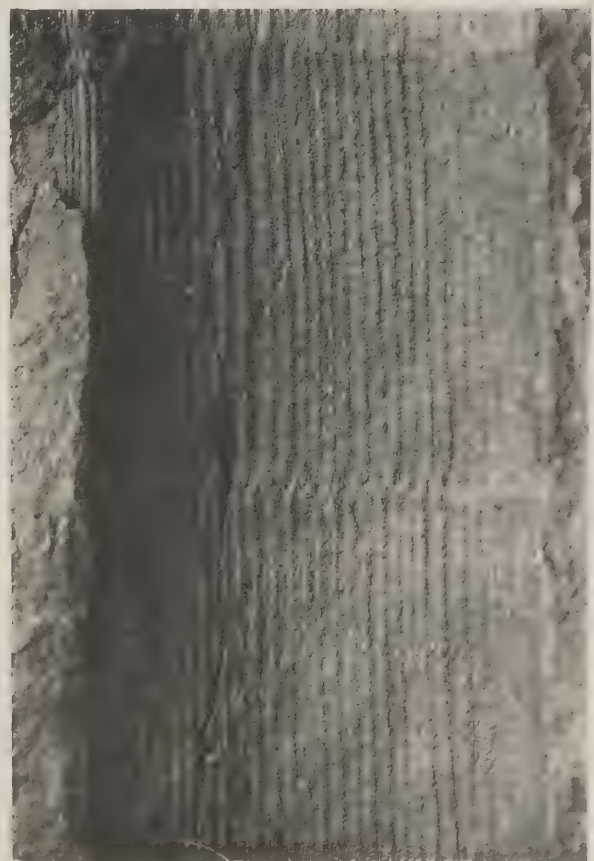
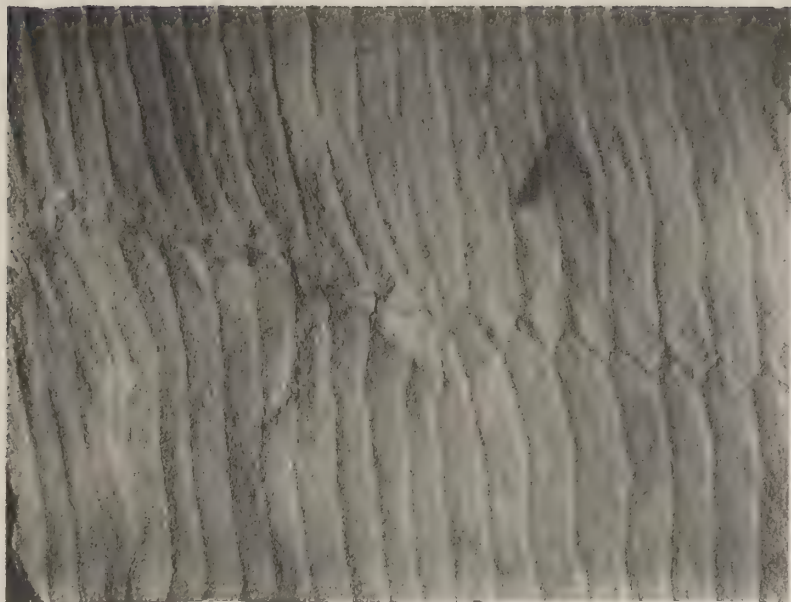


















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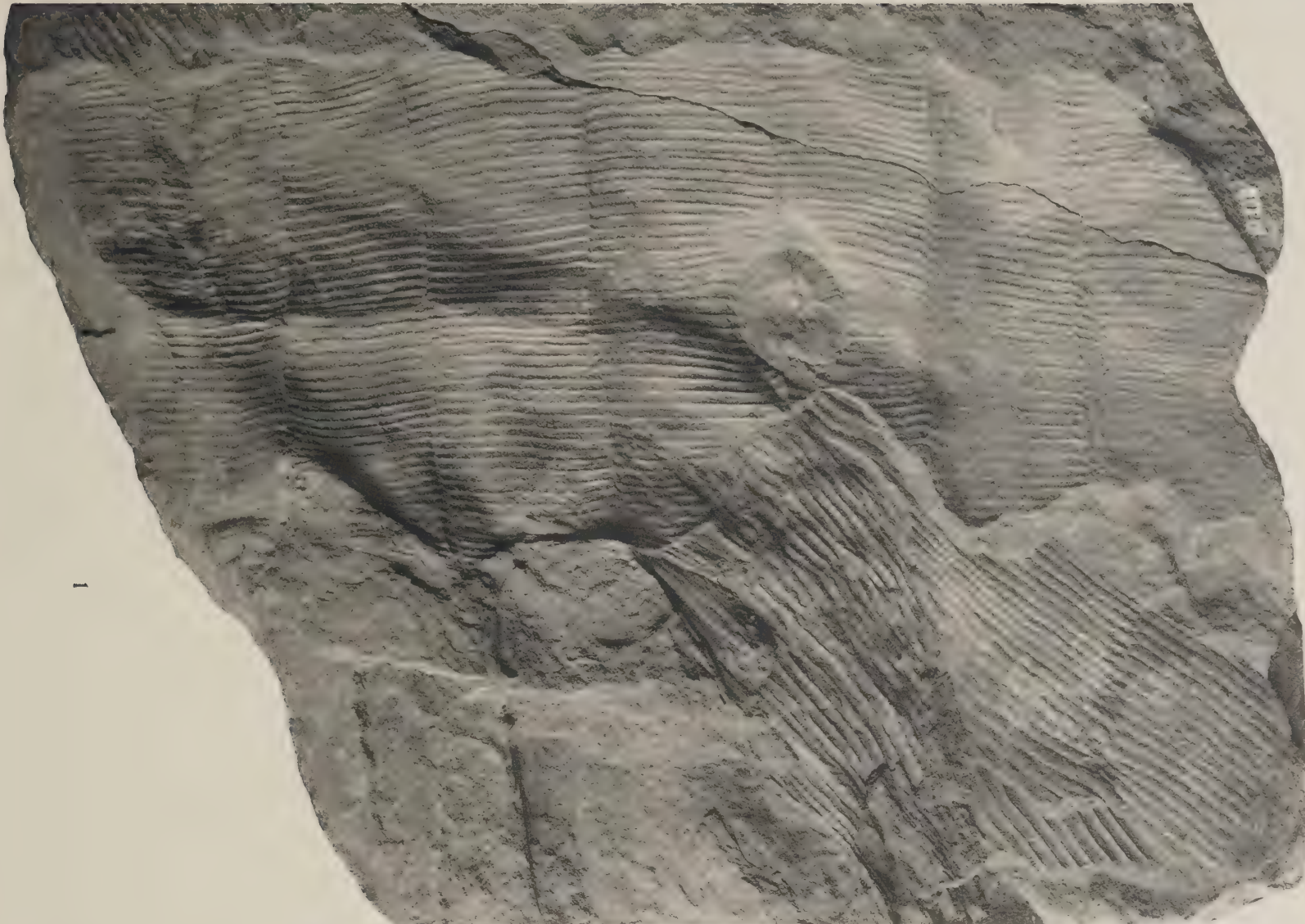


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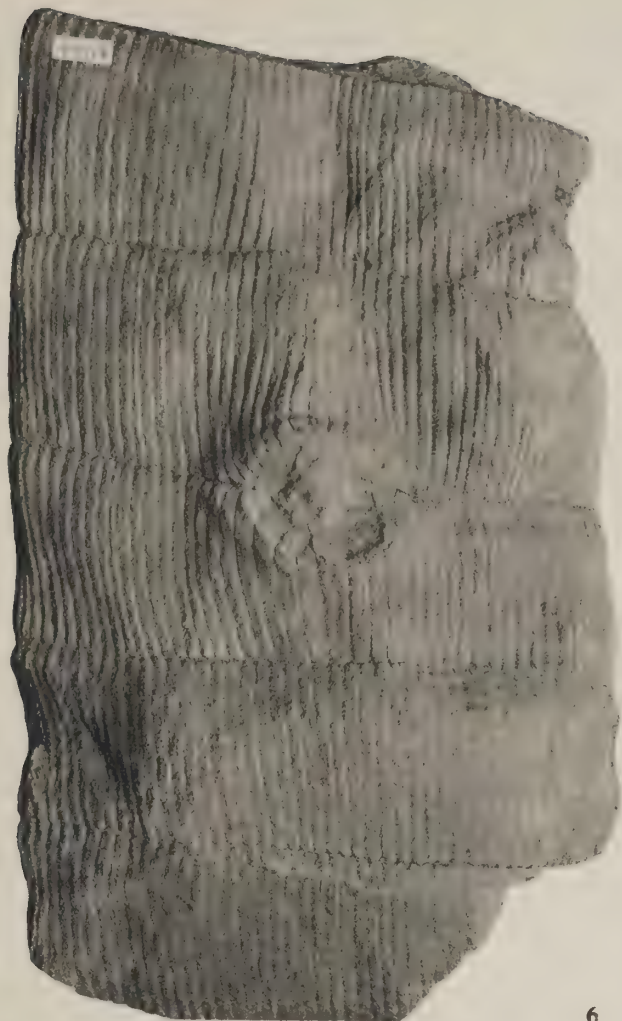
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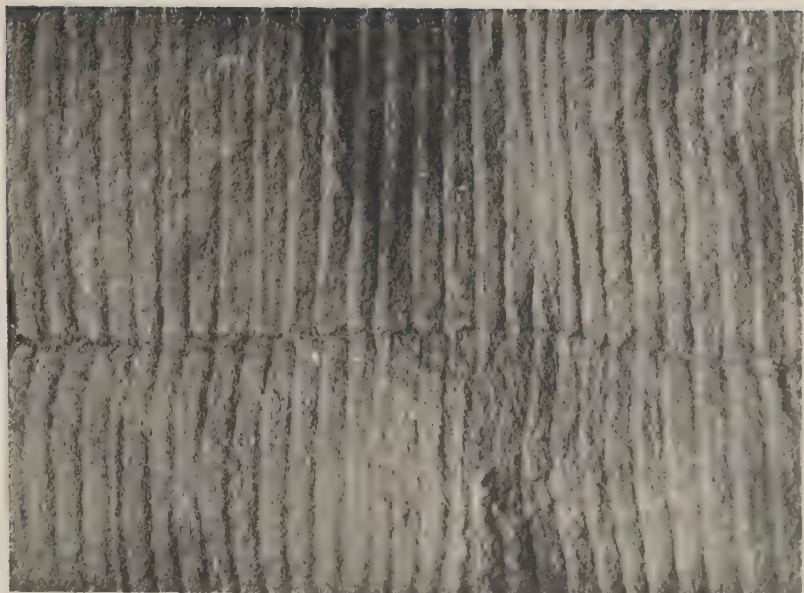








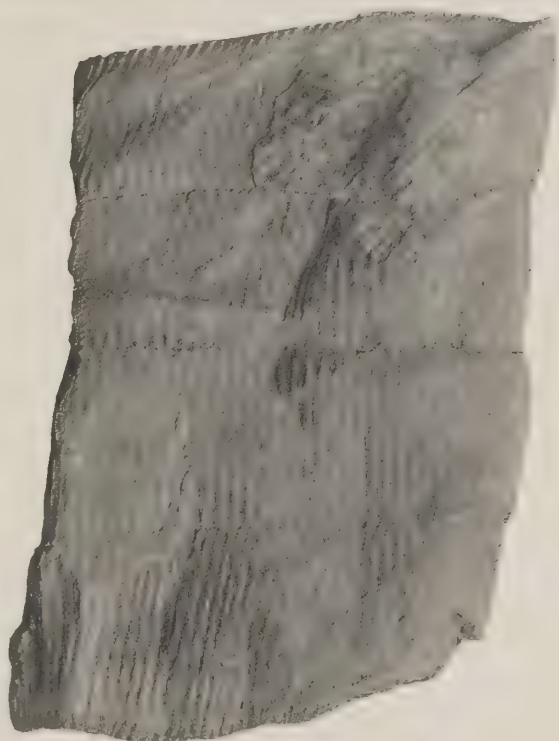
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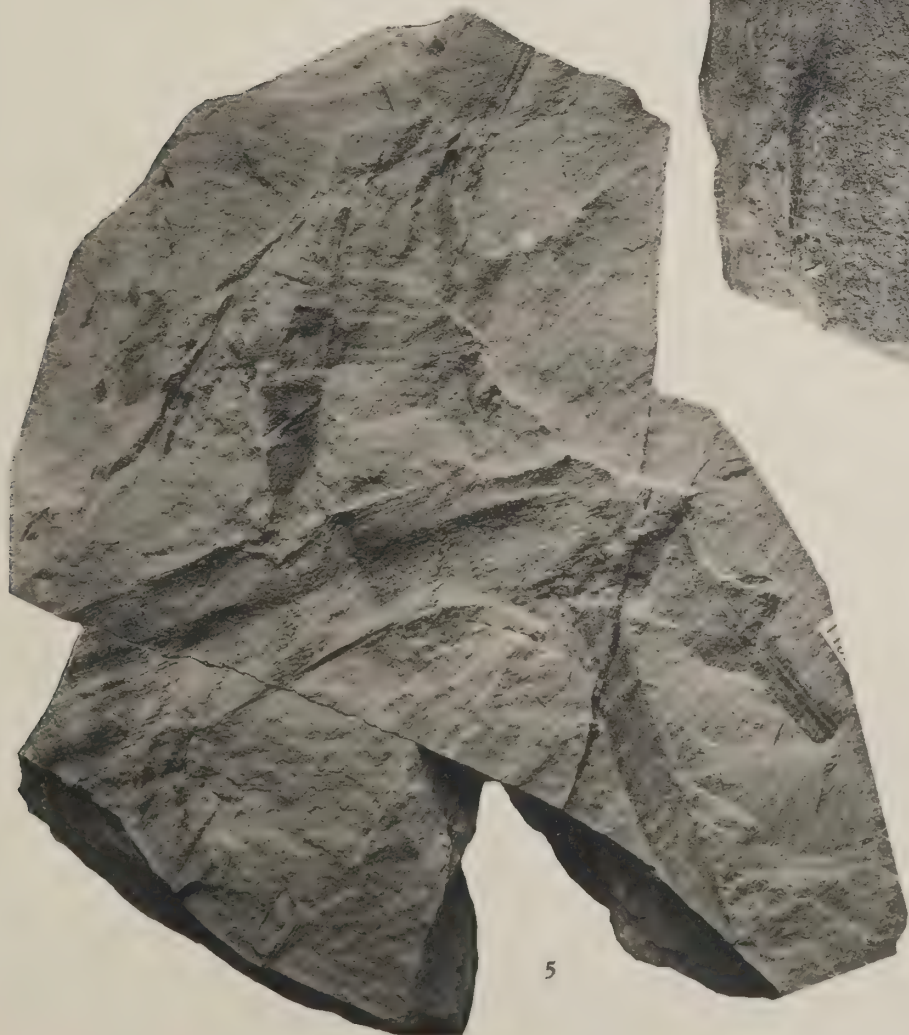
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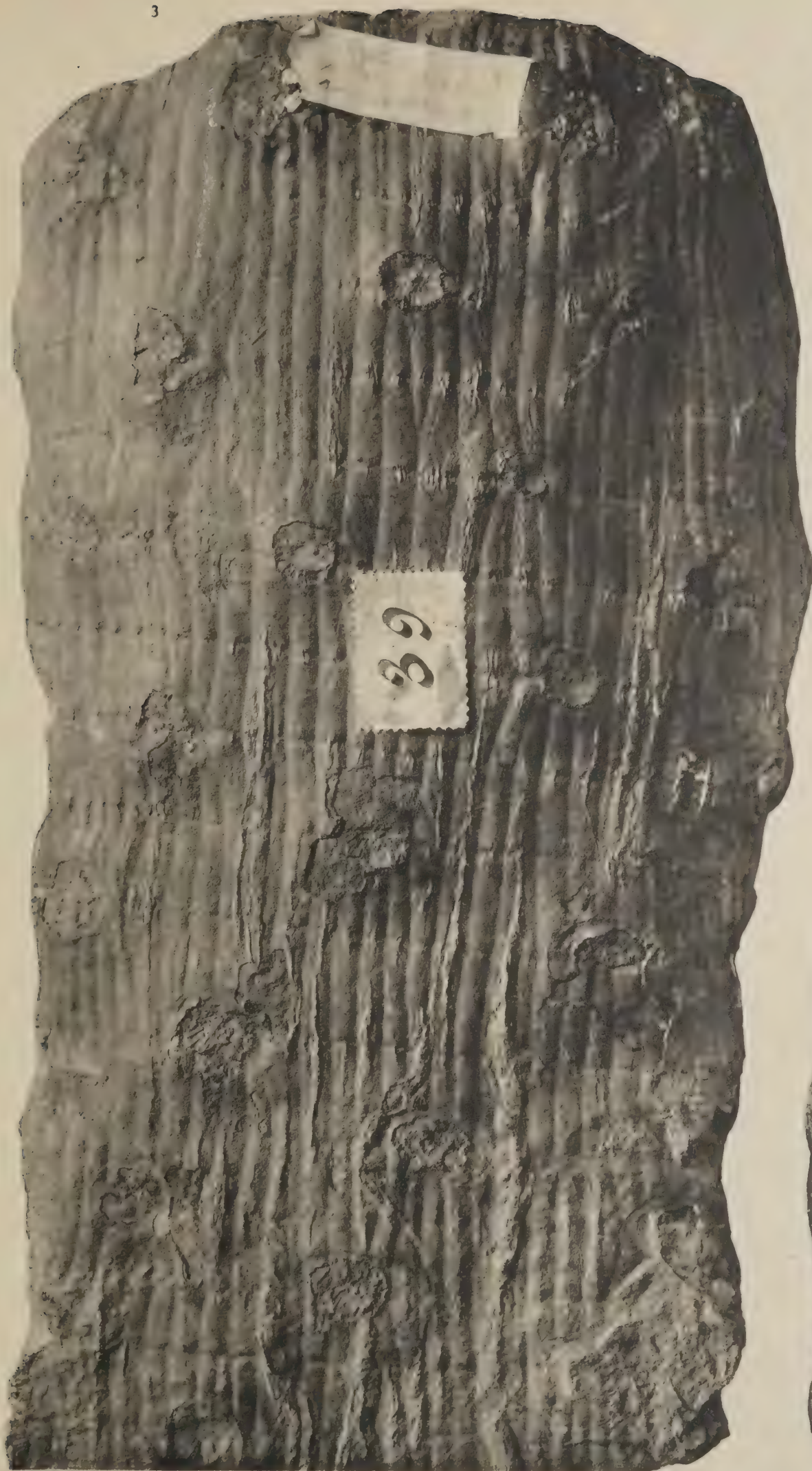
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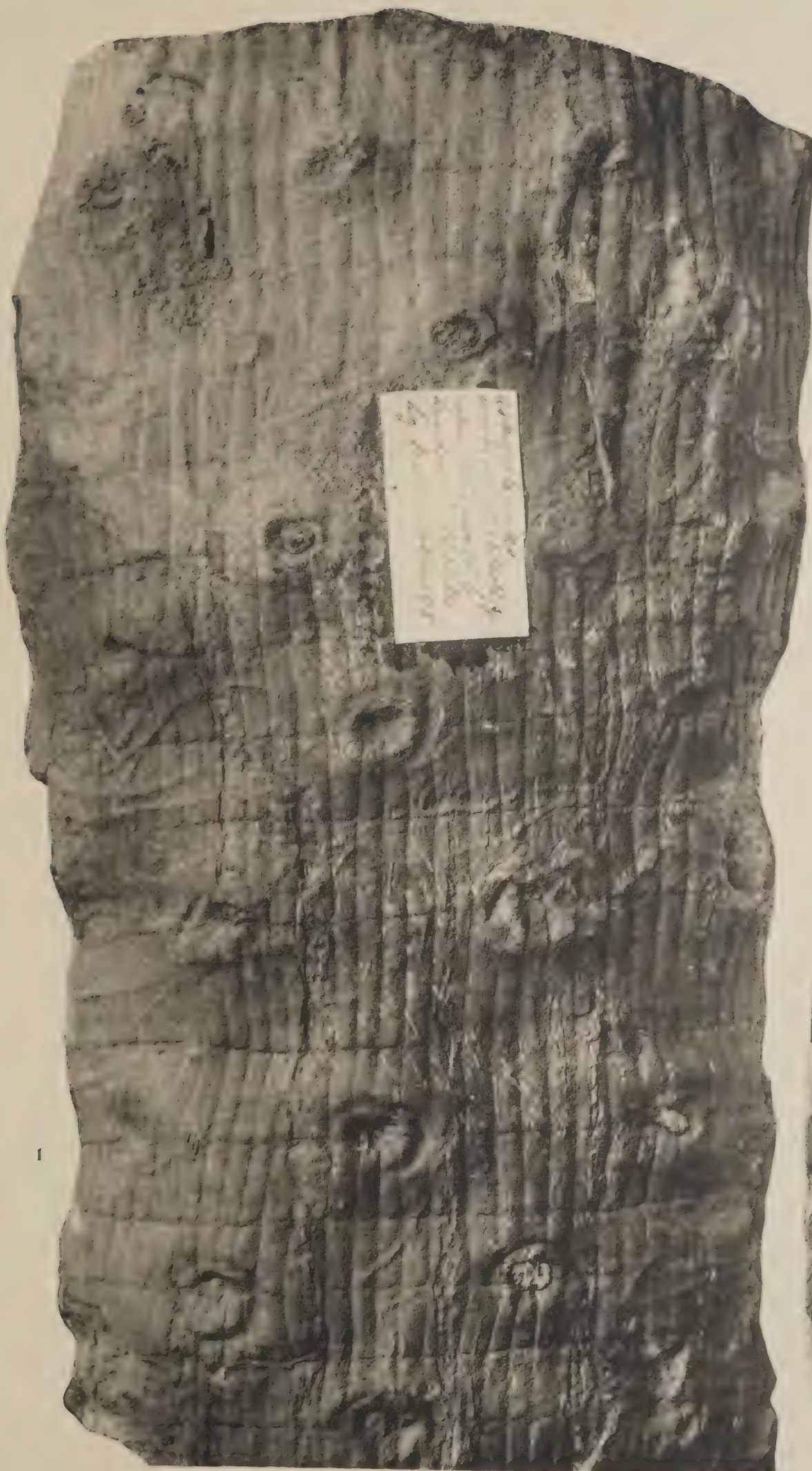


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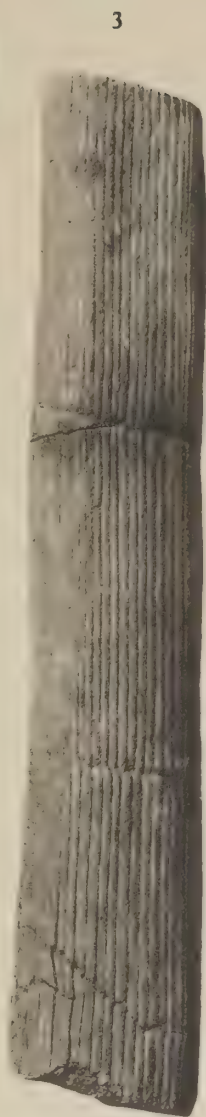
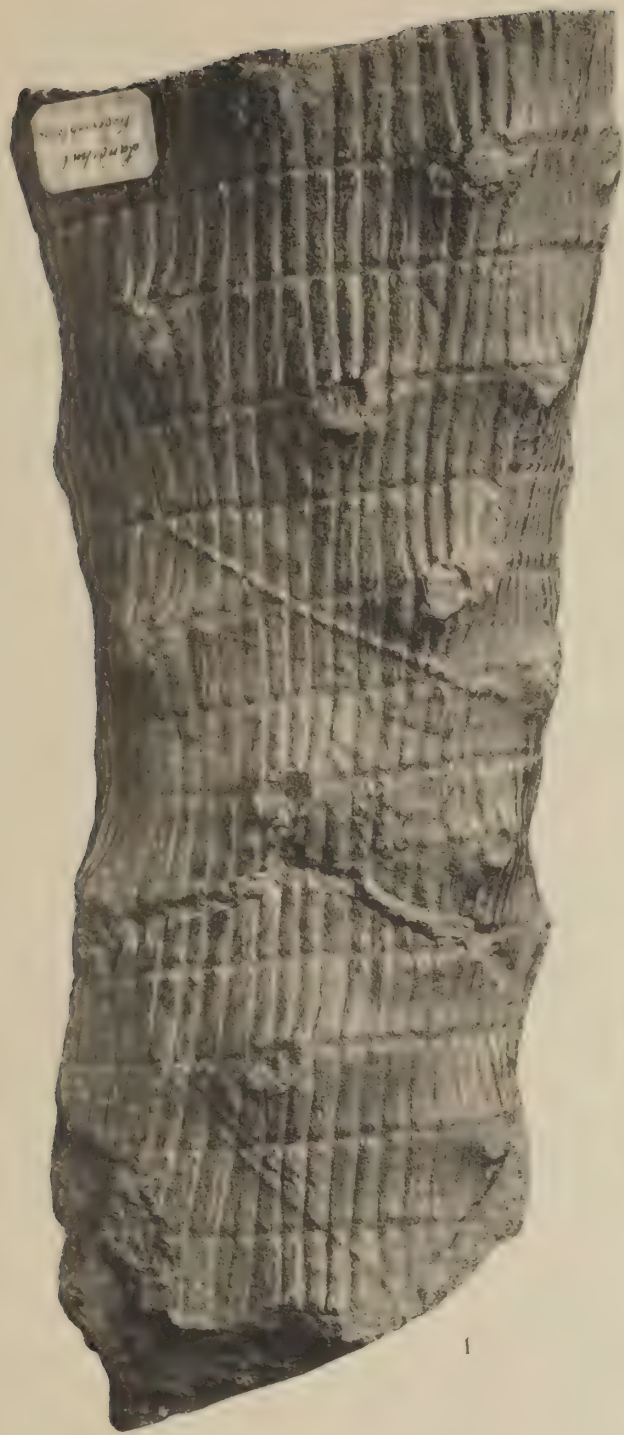
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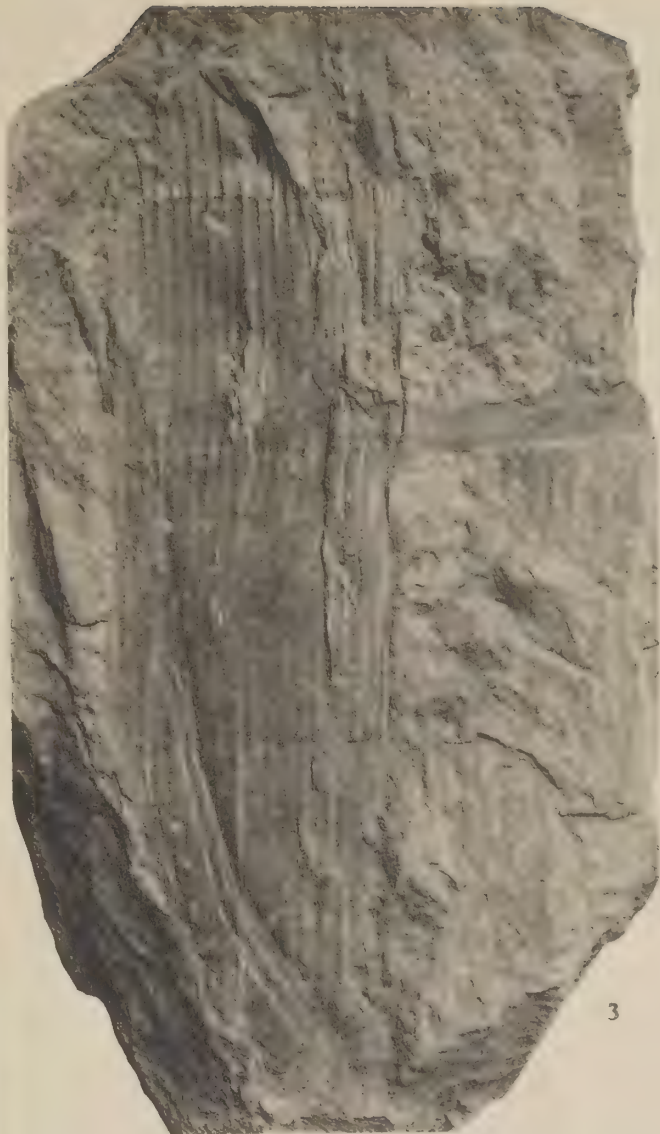
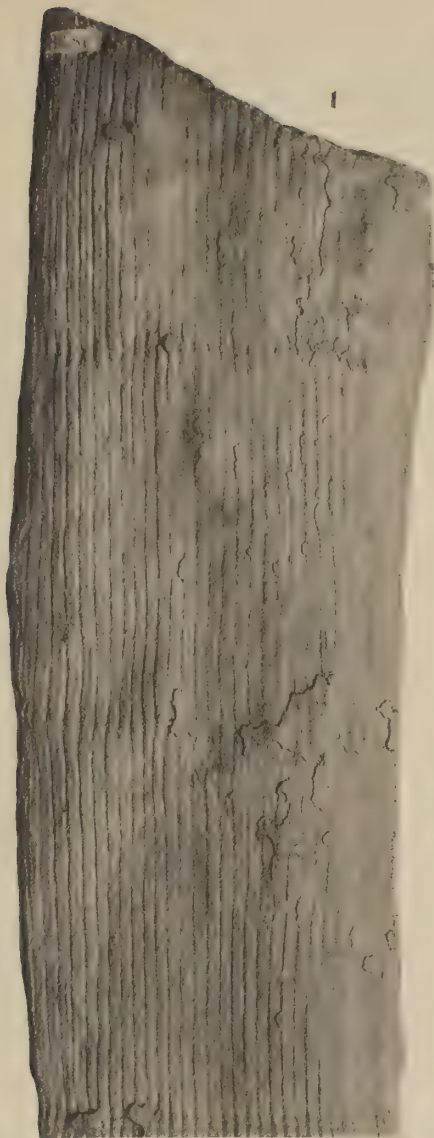




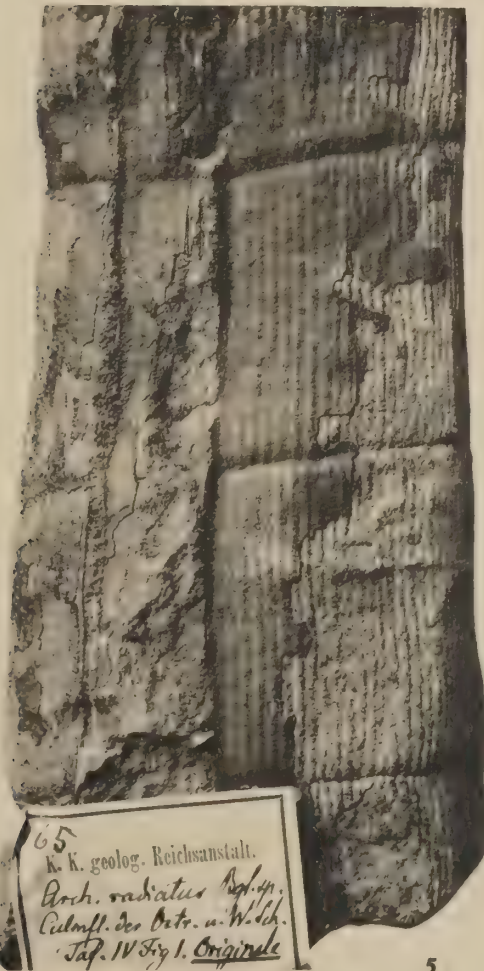








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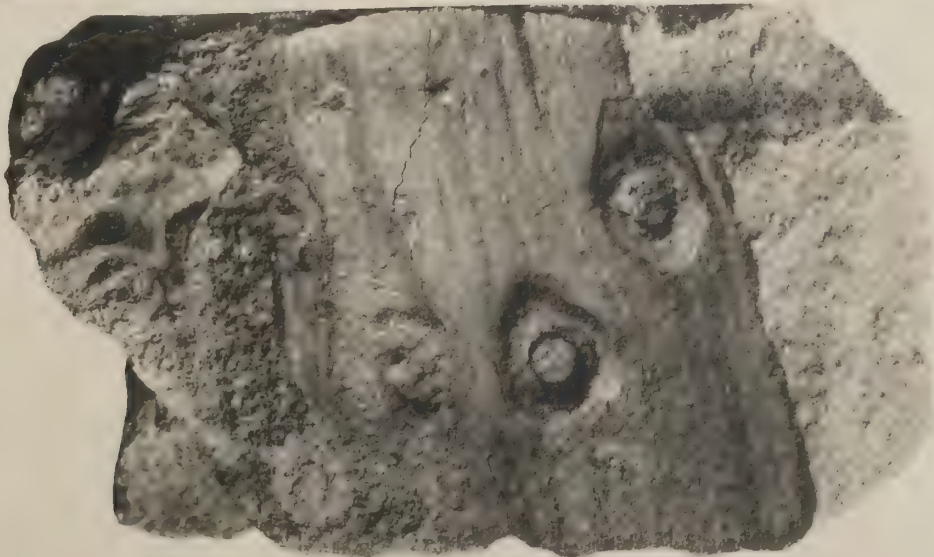
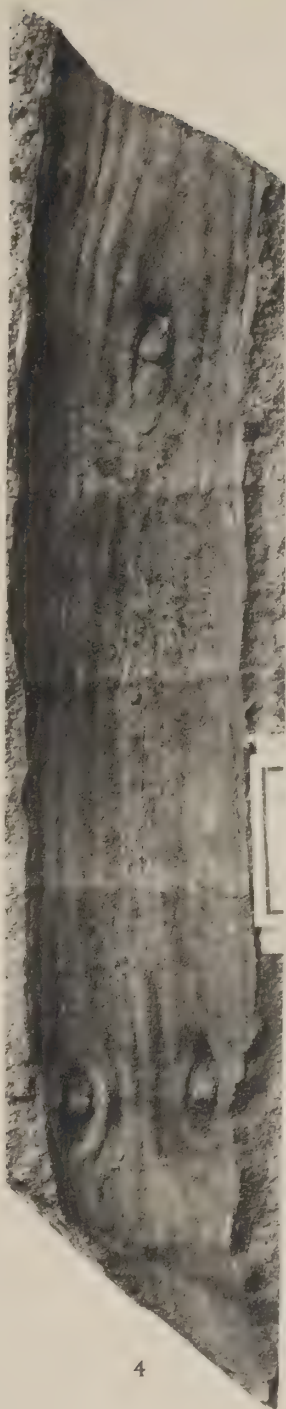


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65  
K. K. geolog. Reichsanstalt.  
*Arch. radiatus* Ag. sp.  
Calm. d. d. d. u. W. d. d.  
Taf. IV Fig. 1. Originale

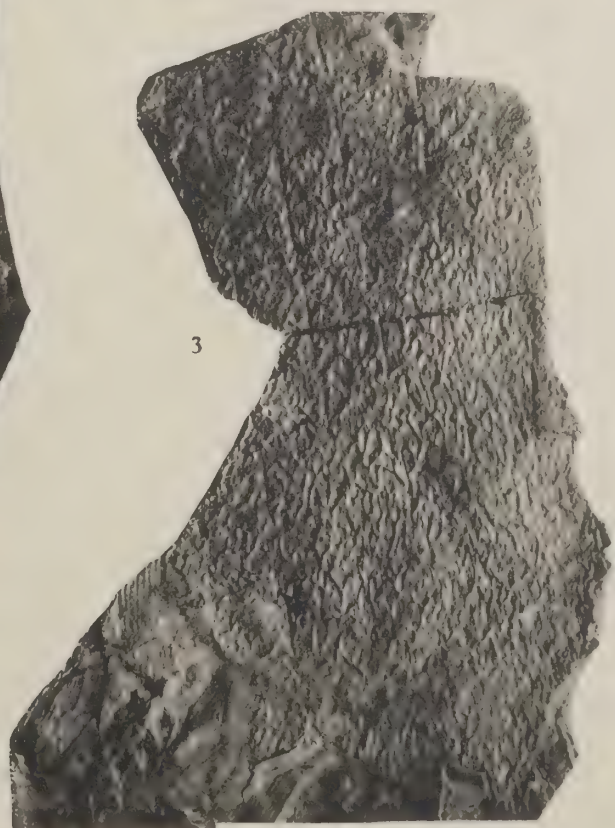










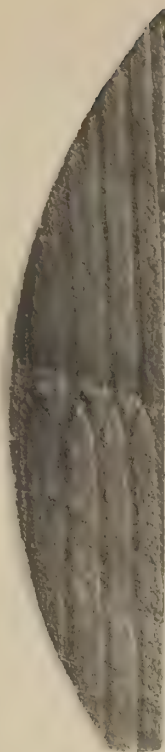








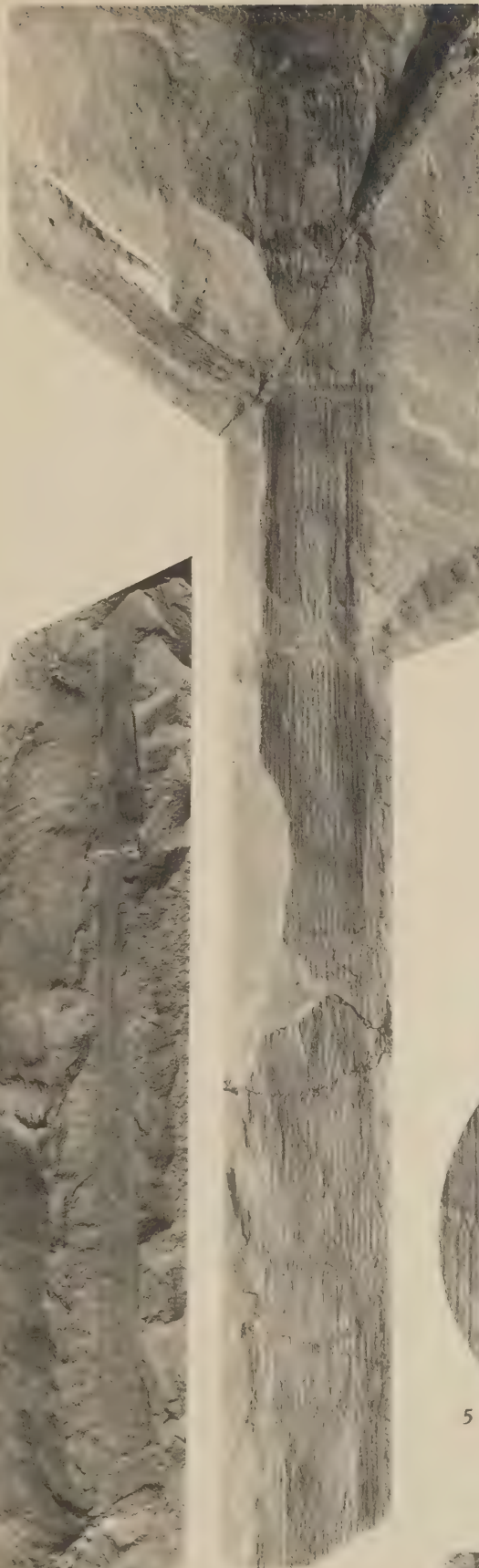
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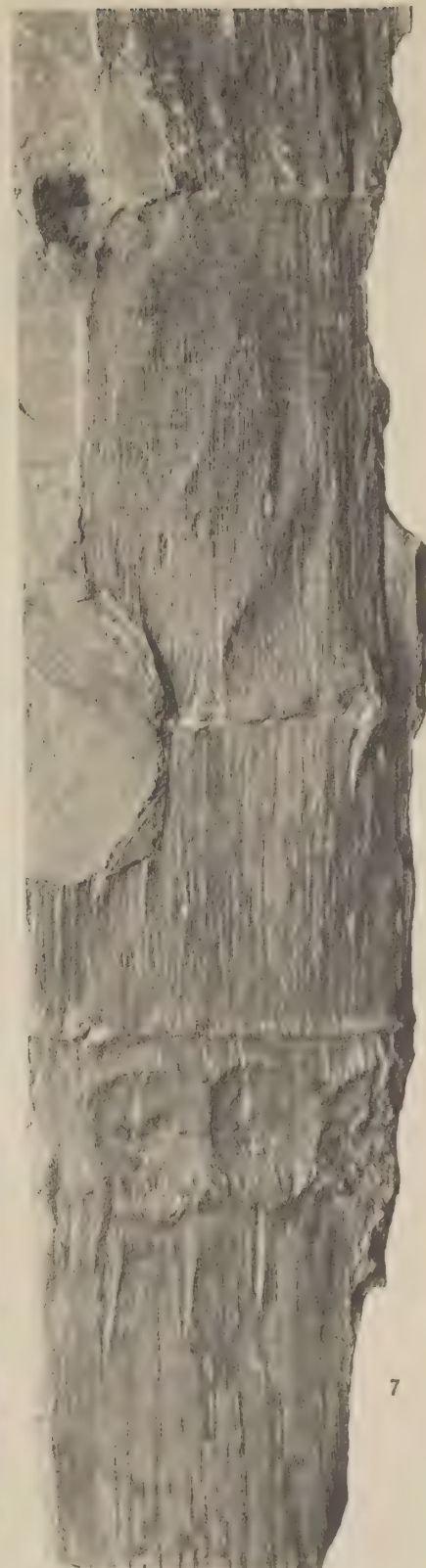
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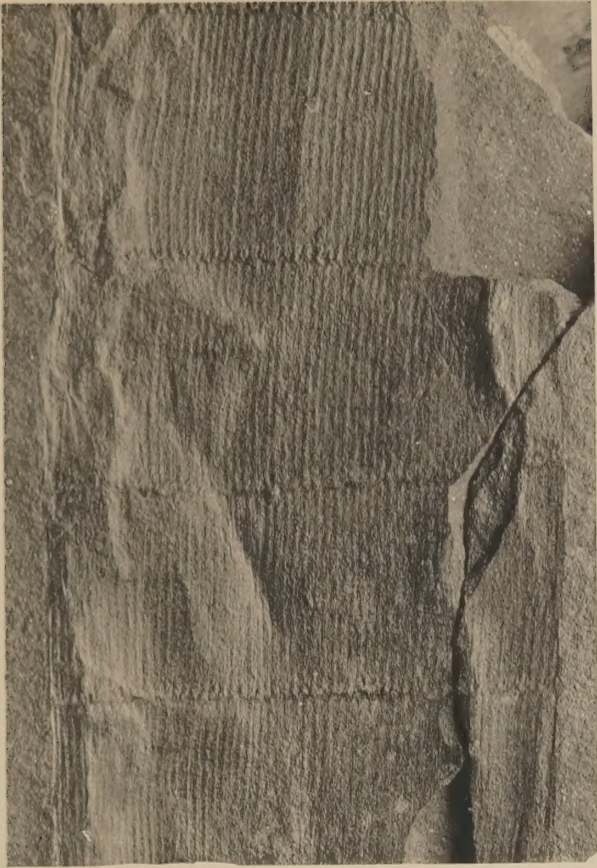


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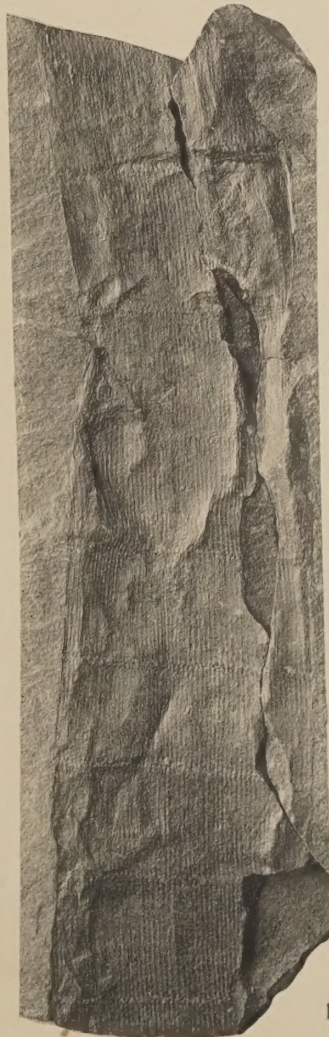
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